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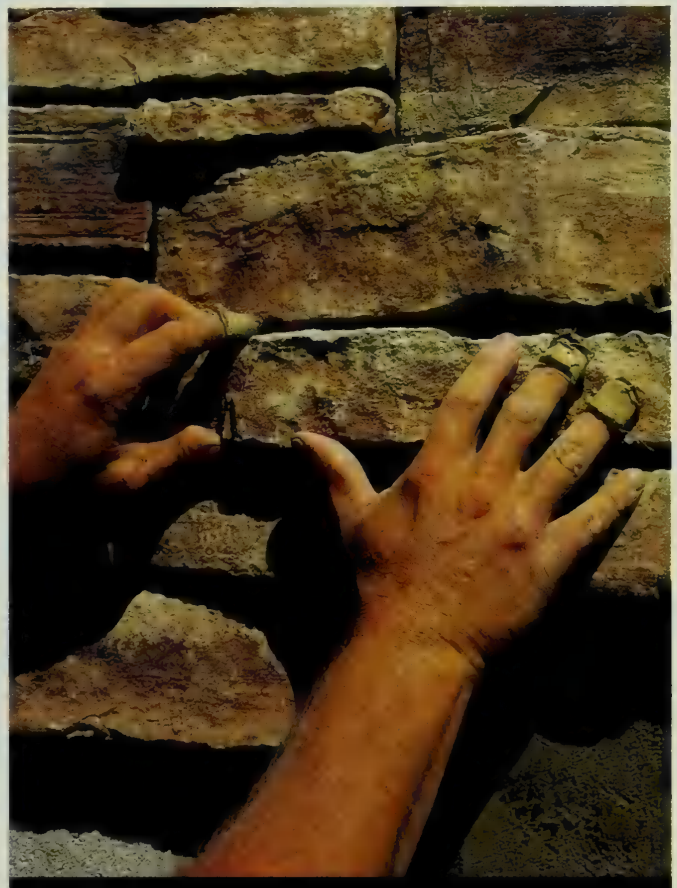
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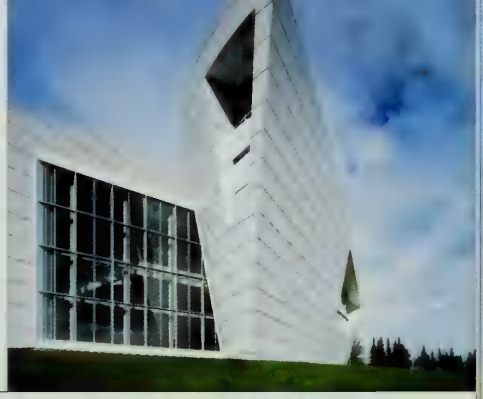
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On the Cover: *Denver Art Museum, by Studio Daniel Libeskind. Photograph by Peter Aaron/Esto.*
Right: *Museum of the North, by GDM. Photograph by Nic Lehoux.*

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School of Art and Art History, University of Iowa, Iowa City
Architect: Steven Holl Architects
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Project Portfolio

From Alaska to Ohio to Iowa, stellar architecture continues to make cultural destinations out of locations around the country that haven't always been known as centers of fashion.



Houtsma Loods, Amsterdam, The Netherlands
Photography, Courtesy FARO Architecten

Building Types Study: Office Buildings

Office Buildings: Social Sustainability

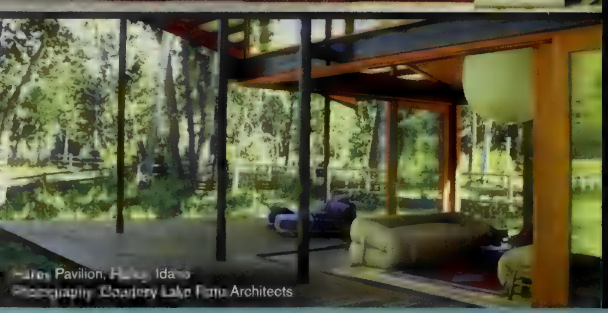
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Pavilion, Boise, Idaho
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Residential Special Section: Small Houses

Good architects know the importance of human scale, but it takes a while for the society in general to catch up. Still, these days, ecoconscious consumers and younger buyers steeped in cool design aren't going to live in McMansions; they want their homes to reflect their values. Here are four examples of large living in small spaces.



Residence, Portland, Oregon
Photography: © Cameron Neilson

House of the Month

Talk about breaking out of the box! Robert Oshatz's organic floating home, the Fennell Residence in Portland, Oregon, uses curved glulam beams and an expansive glass façade to convey poetic forms.

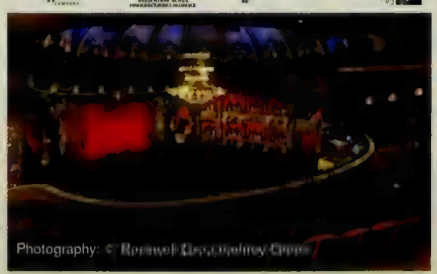
Continuing Education Opportunities

Our editorial continuing education opportunity takes a dramatic turn this month, with a detailed explanation of how the Rockwell Group constructed a 2,100-pound neo Baroque chandelier for the Las Vegas production of The Phantom of the Opera. Go to archrecord.construction.com for other opportunities to earn credits.

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What outside forces shape the design sensibilities and practice strategies for young firms? For some, like L.A. firm assembledge+, it's location. Others, like Christian Wassmann, have found their paths to solo practice with the help and support of mentors.

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AIA and the Power of 10

Editorial

By Robert Ivy, FAIA

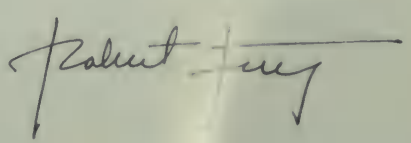
Call 2007 the year of anniversaries, in multiples of 10. All have significance, none more so than for the 77,000 licensed architects, emerging professionals, and allied partners of the American Institute of Architects, who are celebrating a Sesquicentennial. On February 23, 1857, the architect Richard Upjohn convened a small group of friends (let's call them out for glory, including a few names you might remember, to wit: son Richard, son-in-law Charles Babcock, H.W. Cleaveland, Henry Dudley, Leopold Eidlitz, Edward Gardiner, Richard Morris Hunt [whom you should certainly know], J. Wrey Mould, Fred A. Peterson, J.M. Priest, John Welch, and Joseph C. Wells). They gathered in New York for a specific purpose: to create an organization of fellow architects to "promote the scientific and practical perfection of its members" and "elevate the standing of the profession."

For 150 years, the AIA has worked to elevate architects into a unique profession devoted to the larger society through the art and science of architecture. Appropriately and simultaneously in 2007, the institute will award its highest honor for individual contributions to the profession, the Gold Medal, for the 100th time. That august award first graced an architect with great fanfare in 1907, when it was awarded to (can you guess?) Sir Aston Webb, English architect and president of the Royal Academy. Charles Follen McKim and a familiar roster of great names immediately followed suit.

Throughout the intervening years, as architects have experimented with, debated, and codified their place in a rapidly changing civilization, the AIA has served as a kind of forum of disparate peers, all allied by a common calling: individuals and groups of architects serving as mediators and interpreters of people's deepest needs for shelter, for safety, and for improvement of the environment. Ultimately, we tie down the ineffable, envisioning and creating the physical places that accommodate those high-blown aspirations. In touch with the esoteric (who else cares about proportion, or scale, or the requirements of three-dimensional space in the public realm?) as well as the pragmatic (how many fasteners does that wall actually need?), architects maintain a tension between the possible and the actual, today in an increasingly digitized, highly communicative, local and international world. The AIA, a gathering place of individual people, communities, and regions, helps sort through this impossible-seeming maze, and in the process, both the profession and the institute have grown up together.

Rather than merely hold a party and call it a day, the institute determined to launch a series of community-based initiatives through an ambitious program called "Blueprint for America." Already, 60 individual components (chapters, states, regions) of the larger organization have been awarded grants, as have 96 components that will receive supplemental grants. As an example, in North Carolina, a grant will help fund a study to minimize sprawl by developing planning alternatives. Not a bad idea. In San Francisco, the local component applied for and received aid to engage the community through walking tours of the city. All seem commendable goals. In addition, the home facility of the AIA, at 1735 New York Avenue NW, in Washington, D.C., will receive an "environmental upgrade," essentially "greening" the national offices. For details, check out the Web site at AIA150.org.

At ARCHITECTURAL RECORD, *we are joining in the celebration. Not only is McGraw-Hill Construction the official media partner for the AIA 150, but 2007 represents* RECORD*'s 10th year as the publication of choice for the AIA. Look for an enhanced calendar of celebratory events beginning in February, as well as special sections and stories and online opportunities throughout the year. You, the reader, may well be an AIA member. Regardless, we all recognize and want to share in architecture's contributions, and this year will highlight the AIA's integral role in the architect's advancement. While no institution is perfect, ultimately we look around and realize it's us, not an abstract organization. We, the members, have only ourselves to look to, and today, to congratulate. So, to us, the 21st-century architects who compose the American Institute of Architects: Happy 150th, Happy 100th—and for* ARCHITECTURAL RECORD, *a big 10. Excelsior!*



Letters

Another take on Temko

As someone who was very involved in the fight over downtown development in San Francisco for almost two decades, and who avidly read Allan Temko's work, I want to suggest a slightly modified perspective on the impact of Temko's stance as an activist in urban design [December 2006, Critique, "Battling for better architecture: The argument for activist criticism," page 41].

I am struck by how much better the architecture of newer commercial and civic buildings is in cities like Chicago, Minneapolis, and Seattle than it is in San Francisco. Virtually all the buildings the city added during the office boom of the early 1980s are mediocre, and they are mediocre because activist opponents of high-rise growth used design as one of many tools to slow the development process.

I fear that Temko's activist approach played right into the hands of the No-Growthers in the 1970s and the '80s. One way they had of slowing development was to ask the Planning Commission to exercise discretionary review on every high-rise proposal. The commission gleefully did so, making all kinds of tweaks to developers' designs, and dumbing down the design of these buildings in the process.

I believe Temko's feisty commentary on architectural issues fueled in some small way the No-Growthers' zeal for using this as one more tool to stop growth. He certainly was not the prime mover in this regard, but he was part of a movement. Where Temko fired up the zealots, Blair Kamin makes public policymakers think about what good design means. Perhaps each of them is taking the same approach adapted to the times in which they

—Mike McGi
Washington, D

Blair Kamin responds:

I appreciate Mike McGill's observation that I try to point out constructive alternatives to poorly conceived developments. But I must say, I learned that from Allan, especially his series on the redevelopment of the Presidio. So I must differ with McGill's perspective on Allan and the No-Growthers in San Francisco. Allan clearly believed that an enlightened public sector had a role to play in guiding untrammeled development. At the same time, he spoke out against the Postmodern urban design guidelines that Dean Macris and San Francisco's planning department foisted on architects. I think Allan got the balance right—public agencies should do neither too little nor too much in guiding private development. So while the No-Growthers may have glommed onto Allan's demand for strong public review, in no way did he agree with the outcome of the overly prescriptive guidelines. Sometimes, in other words, journalistic activism can have unintended consequences. Just don't blame that on the journalist.

Annual applause

Two aspects of your December 2006 issue drew my attention.

The first was the excellent profiles of the Design Vanguard 2006, which introduced some superbly talented younger designers. However, I was dismayed that in the more than 50 pages of illustrations on the work of the 10 firms, there was not a single floor plan, and only one section (and that was a model photograph, not a drawing). I would hold that Frank Lloyd Wright and Le Corbusier were correct in asserting the preeminent importance of the plan in architectural design, for it orders the inhabitants' experience of place.

Second, I applaud your decision to publish Blair Kamin's Critique, and am fully in agreement with his arguments for the great need today for fewer "aesthetic parlor games" and more serious evaluation of what Kamin rightly calls "the inescapable art" of architecture. Without a doubt, Temko was instrumental in stopping many gravely misguided, inappropriate, and just plain bad projects from becoming a permanent scar on San Francisco. If only every city could have a champion of common sense in architecture like Temko and Kamin.

—Robert McCarter
Gainesville, Fla.

The city that never sleeps

After reading the first few paragraphs of Suzanne Stephens's December 2006 feature, "Not Only Zaha" [page 58], I am seriously thinking about moving to New York City to be around "the hotbed of female architects." Surely, Ms. Stephens might have chosen a different metaphor.

—Michael Strogoff, AIA
Mill Valley, Calif.

Heartbreaking work of staggering travesty

I was greatly disturbed by the arrogant tone taken by architect Warren Schwartz in RECORD's December 2006 end-page, "AR Past and Present" [page 292]. In this age where architects are striving to create projects based on sustainable design predicated by minimizing our ecological footprint, here comes someone who blatantly adds to the immense volumes of garbage and waste on this Earth because his "cover-worthy" house was deemed to be "unfashionable." That is the attitude that created the mess to begin with. Recycling, upgrading, renovating—these options were either not considered or deemed unnecessary by Mr. Schwartz.

To call this act the creation of a tabula rasa is to insult the Earth. The proper term should have been gross travesty.

—Paul Backewich
Ontario

The song remains the same

Again, I opened your magazine to find another opus by that ole' surfer-dude, Frank Gehry [December 2006, Marques de Riscal Hotel, page 130]. The guy has been doing the same stuff for 20 years! Is it still newsworthy? The color of the titanium has changed but not the substance.

—James A. Gresham, FAIA
Tucson

Stooping Lowe

I read your news item entitled "Lowe's Makes Katrina Cottages available for purchase" [November 2006, page 30]. Having spent the summer in Biloxi, Mississippi, volunteering and taking a class, I have witnessed firsthand the Katrina Cottage and other redevelopment efforts and have to report that I am gravely disappointed by the Katrina Cottage itself and its mass production.

First off, the cottage does not fit on the area's typical site to allow for a family to inhabit it while rebuilding their home, which is its intent. Secondly, it reverts to architecture of the past. Its style is that of the colonial regionalism that previously existed in the area.

The people of Biloxi and other hurricane-affected areas are excited about the new, and the idea of change and rediscovering themselves. Reverting back slows down this rediscovery and the advancement of architecture.

—Jessica C. Baldwin
North Carolina State University

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Record News

Highlights

p.20 **Edward Larrabee Barnes wins gold**
p.24 **Gazprom ignites fury in St. Petersburg**
p.26 **In Paris, architecture for inclusion**
p.29 **Peter Blake dies at 86**

GSA's new chief architect vows to improve work environments, embrace multiple design vocabularies

In late November, the General Services Administration (GSA) named Leslie Shepherd, AIA, its new chief architect. Shepherd had been acting in the position since Edward Feiner, FAIA, retired as chief architect in January 2005. Feiner launched the Design Excellence Program and is credited with recruiting leading Modernist architects to design federal buildings. Shepherd has worked at the GSA for 18 years, most recently as director of the National Federal Buildings and Modernizations Program and deputy chief architect. He earned his B.Arch. at Texas Tech University in 1983, and ran his own firm in Albuquerque before joining the agency in 1989.

In September, The Wall Street Journal *had reported that Thomas Gordon Smith, AIA, a practitioner of Classical-style architecture, would be named chief architect, which led to speculation that the GSA was moving away from Modernist buildings. The report turned out not to be true; however, at the time of Shepherd's promotion, Smith was awarded a fellowship to provide advice and guidance to the GSA. The chief architect is influential: The GSA's current design and construction work is valued at $12 billion, and it is said to be the nation's biggest landlord, owning more property than any other entity.* RECORD *caught up with Shepherd to talk about his appointment.* Tim McKeough

ARCHITECTURAL RECORD: *How has the Design Excellence Program performed?*
Leslie Shepherd: It's attracted the best architects to do our work. Actually, 18 years ago, when I went to work for the GSA, we would get maybe seven or eight submittals when we put out a solicitation. Now, it's not uncommon for us to get 50 submittals on a major project. We get submittals from the full gamut of the industry, and we really select the who's who of American architecture to do our work. It's been terrific.



AR: *That's a direct result of the Design Excellence Program?*
LS: It really is. The Design Excellence Program focuses on the lead designer. Eighteen years ago, when we'd advertise a project and select a firm, we would often get handed off to the B team or the C team. We focus on the lead designer, we select the lead designer, and we expect that lead designer to be involved from the start through the finish—and they generally are. We don't get handed off to the B team, and the Design Excellence Program has made that possible.

AR: *Where do you see the program going in the future?*
LS: Everything's going to evolve in some way. Over the last year, we focused on high-performing buildings. We've got to do a better job with energy performance. We have to deliver the projects on schedule, on budget. The bulk of our new set of peers—we just [picked] 110 new peers [for review panels]—were selected as leaders in the industry, specifically for high-performing buildings; people with sustainability backgrounds. We think that's going to inform new buildings in the future.

AR: *There were rumors that Thomas Gordon Smith, who's considered an advocate of Classical architecture, was going to be appointed chief architect, which led to speculation that the GSA is moving away from Modernist architecture. Is there truth to that?*
LS: We're looking for the program to include a full spectrum of designers, both Modernists and traditionalists. There are appropriate buildings for every place we build. Some of our newest peers are traditionalists, and we'll use those peers to select the appropriate architect for the appropriate project.

AR: *Smith was awarded a fellowship. How will he work with the agency?*
LS: He and I and Tom Grooms, the director of Design Excellence, are just working that out, but we're in the early stages of planning a symposium in the next few months to talk through those issues in a public forum. Thomas is going to be a great resource for us. It'll be great to have Thomas look over the body of work and make sure that we are doing a full spectrum, and that we have a balanced approach in the way we deliver the program.

AR: *Are there other priority areas you plan to focus on?*
LS: Workplace matters, workplace environments—and that sort of goes along with sustainability. A building has to function and operate. It's not just what it looks like, but how it makes the building's occupants able to do their jobs bet

Edward Larrabee Barnes wins AIA Gold Medal

FXFowle principal Bruce Fowle, FAIA, remembers working for Edward Larrabee Barnes, the winner of the 2007 AIA Gold Medal. "We felt like we were part of a family." Barnes's nurturing traveled well beyond office walls, however, as his skillful blending of Modernism with vernacular architecture's sense of place had far-reaching impact.



Barnes was among the most accomplished of those American-born architects trained by Modernist emigrants. After studying with Walter Gropius at Harvard, he proceeded to give an American inflection to the rigorous geometries born in Europe. A whole generation of shed-roofed American buildings was inspired to some degree by his Haystack Mountain School of Crafts in Deer Isle, Maine, completed in 1961. That villagelike arrangement of simple buildings won the AIA's 25-Year Award in 1994, and its iconic status was reaffirmed last year with entrance into the National Register of Historic Places.

Barnes's prolific portfolio includes the Crown Center in Kansas City, Missouri; 590 Madison Avenue (formerly the IBM Building) and 599 Lexington Avenue, in New York; as well as the Walker Art Center in Minneapolis, the Dallas Museum of Art, and the Thurgood Marshall Judiciary Center, in Washington, D.C.



Edward Larrabee Barnes (above) designed the angular, shingled buildings at Haystack Mountain School of Crafts (left) to merge Modernist and vernacular traditions.

Just as much of his work was understated, so was the man. In describing Barnes, Henry N. Cobb, FAIA, remarked in his nomination, "With characteristically quiet determination, Edward Barnes produced a large body of distinguished built works—some of them too-little celebrated—during his more than 40 years of practice. Although Barnes was modest, perhaps to a fault, and often seemed to operate 'below the radar' of critical acclaim, his influence has nonetheless been broad and deep."

Indeed, Mark Strauss, 2006 AIA New York president, noted that the nominating committee was moved by the number of distinguished architects who felt that Barnes had a major impact on their careers. The New York, Chicago, and Kansas City chapters of the AIA all nominated Barnes.

Barnes died in 2004, at age 89. While Edward Larrabee Barnes Associates won the AIA Firm Award in 1980, this is the sixth of 63 gold medals to be awarded to an individual architect posthumously; Thomas Jefferson and Samuel Mockbee were among the other recipients. *John Kriskiewicz*

Leers Weinzapfel first woman-owned business to win AIA Architecture Firm Award

Leers Weinzapfel Associates got word of its 2007 AIA Architecture Firm Award while in the process of moving its offices from Boston's Fort Point Channel district to Chinatown. Gathered for a lunch meeting when the call came in, the staff scared up some appropriately festive beverages to toast the occasion, the first time the AIA has given the award to a woman-owned firm.

"We had already ordered our salads and pizza, so we fortified that with a little bubbly and beer," founding partner Jane Weinzapfel, FAIA, recalls.

AIA jurors cited the 24-year-old firm's resourcefulness; sensitivity to client, site, and program; and high standards of design and detail. Its careful handling of often complex and constrained urban sites also won praise. In its recent expansion of Josep Lluis Sert's 1970 Harvard Science Center, for example, the firm's designers mated glass-paneled additions to the original concrete-slab structure, taking cues from Sert's early sketches and maintaining the grid pattern of his design. And for a mid-1990s youth community center in Boston, the firm designed a gym, pool, and meeting spaces around a dilapidated hockey rink, producing an expressive, colorful building on a tight budget.

Working as Modernists in Boston's heritage-steeped, conservative environment, Leers Weinzapfel has been frank in making its case, according to the partners. Rather than cleaving to a signature style, the firm tailors its designs to each project, according to founding partner Andrea Leers, FAIA. "But the work does have a legibility of its own. It's recognizable by its attention to materials and precision and simplicity of overall form."

From the beginning, the firm has made a staple of bridges, control buildings, and other utilitarian structures, which the partners credit with honing their design and problem-solving faculties and weathering swings in the market. "We saw in it architectural interest at a time when others saw it as the business of engineers," Weinzapfel says.

And although it's "never not been a factor," Leers says the firm has managed to overcome gender barriers without too much difficulty. "There might be some occasions when [gender] would be a positive thing, and there were times when it was a hurdle."

Projects in the pipeline include a courthouse in Orlando, classrooms for the University of Connecticut, the redesign of a campus mall at the University of Maine, and the renovation of Harvard's Hasty Pudding Club. *Ted Smalley Bowen*



LWA recently completed this expansion of the Harvard Science Center.



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Always green building, always, Wal-Mart announces



Solar panels are among the green features at Wal-Mart's Aurora store.

Wal-Mart, the nation's largest retailer, is also the nation's largest private energy user. Each of the Bentonville, Arkansas–based discount giant's 2,074 supercenters uses an average of 1.5 million kilowatts per year; combined, that's enough to power Chile. The 3,800-store chain's annual power bill tops out at about $1 billion.

In 2005, Wal-Mart C.E.O. H. Lee Scott outlined a corporate plan to cut store energy use by 30 percent and reduce waste by 25 percent over the next three years, investing $500 million a year in sustainable innovations in new construction. Correspondingly, Wal-Mart opened two 200,000-square-foot stores in Aurora, Colorado, and McKinney, Texas, as test laboratories for these broader applications, and on November 13, the company posted the first year's data collection.

LED lighting is one technology the company will be using more widely, for example. Those lights will replace fluorescent tubes in freezer and display cases, resulting in 50 percent energy savings and longer life expectancy. Roof-mounted solar panels and wind turbines yielded less successful results, however, and require further evaluation before being used on a broad scale. The National Renewable Energy Laboratory and Oak Ridge National Laboratory will monitor the two stores for two more years to determine which items will be used in future building plans.

Regarding other potential applications, Don Moseley, Wal-Mart's special projects engineer, says, "There are high hopes for evaporative cooling, waterless urinals, composting of organic materials, and many other concepts, and each are being carefully studied, evaluated, and in some cases incorporated into additional 'test' environments in more prototypical stores." Native landscaping, waterless urinals, and electronic sensor sinks decreased water use by 85 percent at the McKinney facility, for example, although installation at standard-issue stores will likely differ.

While the testing continues, Wal-Mart will begin integrating sustainable components of its experimental stores into new stores during the first part of 2007. It's also initiating a preference program for its 60,000 suppliers to set their own environmental goals. *Tony Illia*

In response to densification, L.A. sprouts news parks



Hargreaves Associates' winning design for The Cornfield state park proposes access via four bridges and wetlands connecting to the Los Angeles River.

On November 17, the California State Department of Parks and Recreation announced that it had chosen a team led by San Francisco-based Hargreaves Associates, with Michael Maltzan Architecture, to design the first state park in Los Angeles. The winning team was selected from 33 entries in an intense, eight-month design competition that was narrowed down to three finalists including New York's Field Operations and the Los Angeles landscape architecture firm Mia Lehrer + Associates.

The Hargreaves plan for the 32-acre site, a former rail yard near downtown known as The Cornfield, includes a 15-acre lawn, fountain-filled plaza, and wetlands with gardens that connect to the adjacent Los Angeles River.

The Cornfield park is just one of several open green space plans under ... greater L.A. Less than two wee... r to The Cornfield announcem... the Hollywood Chamber of ... merce publicized that a feasibi... udy was under way for a park ... the Hollywood Freeway; the 24-acre swath of green would require a half-mile section of the road to be tunneled. And in 2005, a consulting team lead by Tetra Tech was chosen to create a master plan for a 32-mile stretch of the L.A. River that identifies park areas and wildlife habitats, as well as alternative transportation options such as bike and walking paths.

Open space isn't the only change in L.A.'s urban landscape: The city is experiencing major shift from suburban sprawl to urban densification. Downtown alone there are currently more than 10,000 new housing units under construction. Projects range from affordable housing developments in the historic core to swanky mixed-use towers with rooftop gardens and pools. But as these developments replace the predominant single-family house—or attract refugees from the suburban outer rings—a whole range of citizens find themselves without places to play, meet, or relax.

"A lot of the motivation to create open green space is about addressing ecological issues and longstanding inequalities," says Alan Loomis, principal urban designer of the City of Glendale, in L.A. County. "The growth issue has made people who weren't impacted by lack of park space now recognize the inadequacies."

A 2000 study by the Urban Land Institute revealed that the L.A. metropolitan area provides the lowest ratio of park space to total acreage of any West Coast city, and its per-capita park space is significantly below the national average.

But Loomis believes that the 21st-century city is ready to improve on that. "The most interesting discussions about the city and planning have been about open space and transportation," he says. "And there has been a real public response." *Allison Milionis*

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St. Petersburg dispatch: As Gazprom's realization appears certain, Russians rail against modern monuments



RMJM's design for a new Gazprom headquarters beat out entries from Herzog & de Meuron, Koolhaas, Nouvel, Fuksas, and Libeskind.

The last time officials in St. Petersburg, Russia, tried erecting a high-rise near the historic city center, their effort was derailed by a public outcry joined by the likes of Prince Charles and Russian intellectual Dmitry Likhachev. While the Peter the Great Tower will never see the light of day, the decision by Gazprom, Russia's state-owned natural gas monopoly, to construct iconic new headquarters in St. Petersburg seems all but inevitable. And it has left the concerned citizenry reeling.

A concept design competition for the Gazprom skyscraper, which solicited entries from six major international firms, concluded on December 1. The winning scheme for a twisting, 396-meter (1,300-foot) glass tower by U.K.-based architecture firm RMJM has already drawn public protests and forced Norman Foster, Rafael Viñoly, and Kisho Kurokawa to resign from the competition jury, leaving only Russian architects and officials to arbitrate the contest.

The tower threatens to capsize the city's horizontally laid out skyline, opponents say. But as the most recent of four high-profile projects that promise to change St. Petersburg's complexion, Gazprom is just another flashpoint in a much wider debate.

What is emerging is a full-blown identity crisis. St. Petersburg, created by a decree from Peter the Great in the early 18th century, is still largely dominated by Baroque and Classicist structures. The city was spared drastic overhaul when the Bolsheviks moved the country's capital to Moscow in 1918, and again in the late 1930s when construction of an administrative center was shifted to the city's southern periphery.

Recent years, however, have marked a new phase of intervention, symbolized in particular by a controversial expansion of the Mariinsky Theater. Dominique Perrault won the 2003 international competition thanks to a proposal to drape the interior with a golden-hued metallic exoskeleton unlike anything the city has ever seen. Three years later, speculations about the building's future are as intense as ever.

The pace of activity escalated in 2006. First, Foster + Partners was awarded the redevelopment of the man-made island New Holland into a mixed-use complex of commercial, residential, and entertainment venues. In September, Kurokawa's design was chosen for a new soccer stadium, also backed by Gazprom, to rise atop a craterlike Soviet arena that is a protected federal monument and a landmark of Stalinist architecture. Then came the decision on the Gazprom high-rise, to be built on a site across the Neva River from the Smolny Cathedral, a resplendent 18th-century Baroque compound designed by Bartolomeo Rastrelli. The proposed buildings are positioned to shadow or supplant some of the city's famed, albeit neglected landmarks.

With the conclusion of the Gazprom competition, prominent figures like State Hermitage Museum director Mikhail Piotrovsky joined the chorus accusing the city of endangering its past. UNESCO World Heritage Center has sent an official query to Russian authorities, expressing concern that the project could undermine St. Petersburg's listing as a world heritage site.

Not a single prominent design by a foreign architect has been realized until now, although the planned projects in St. Petersburg have mustered the city's overt support as well as guaranteed financial backing from developers.

Gazprom's political muscle sets it apart from even the most commanding clients. As the world's fourth-largest company, Gazprom's officials have spoken of the new headquarters both as an emblem of corporate might and a landmark for St. Petersburg.

The winning competition entry has so far been presented more as a conceptual framework, and will likely undergo some revisions in the months ahead. RMJM's proposal for a Gazprom headquarters ostensibly pays tribute to the spires that punctuate St. Petersburg's skyline. Rising from a pentagon-shaped footprint, the structure spins and tapers towards the top where it culminates in a glass needle. But this form will be defiantly scaled, measuring three times the height of Smolny Cathedral. The designers also have offered to wrap the tower with a glass skin that will change color as many as 10 times a day.

The company has turned down appeals to position its headquarters on the city's fringe, which, in addition to being economically depressed, is less stringently regulated than the city center, where zoning limits height to 48 meters (157.5 feet). The 77-story tower will cost around $2 billion, with an estimated completion date of 2010. The building will anchor a plan for a sprawling Gazprom City business district around it.

The skyscraper competition ruffled many feathers, but short of an outright ban on high-rise construction, St. Petersburg may well consider it a timely effort to explore the potential of a cutting-edge modern edifice in the existing built environment. For residents, however, the winning entry will likely exacerbate pained soul-searching about their city's architectural future. *Paul Abelsky*

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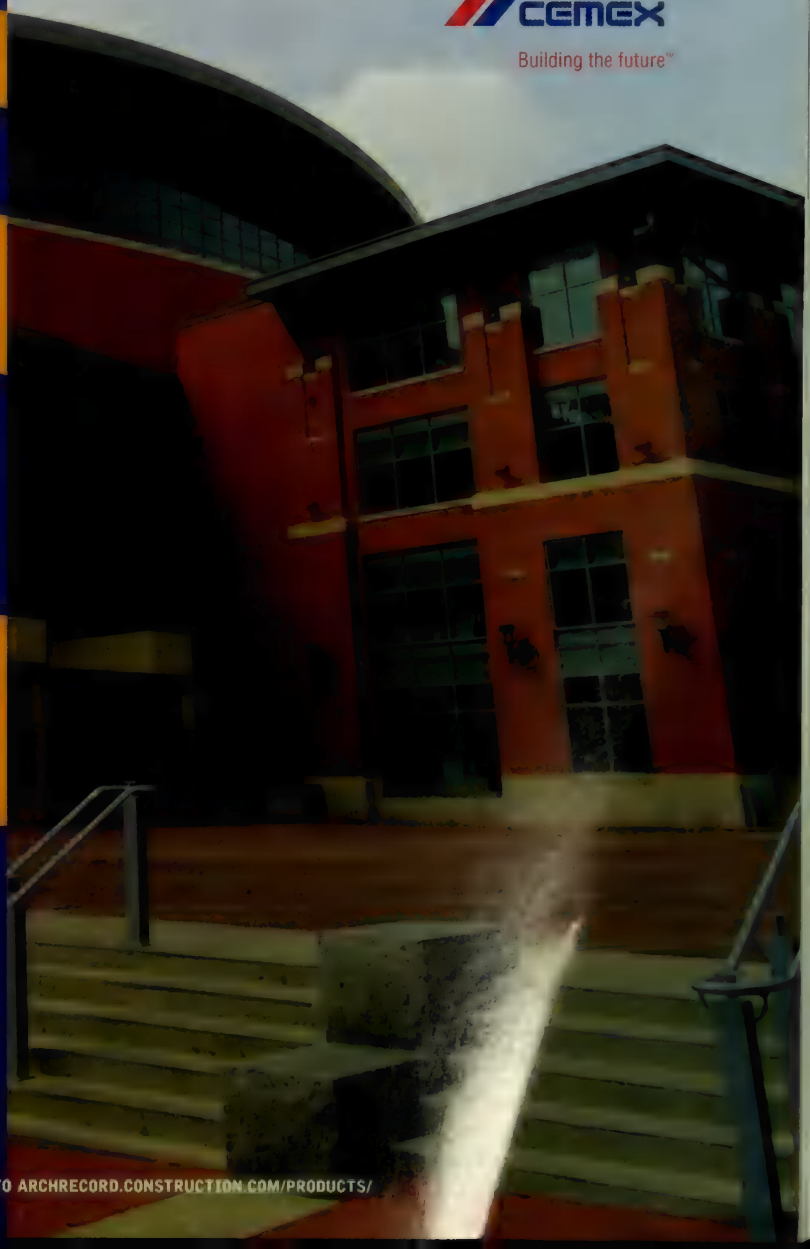
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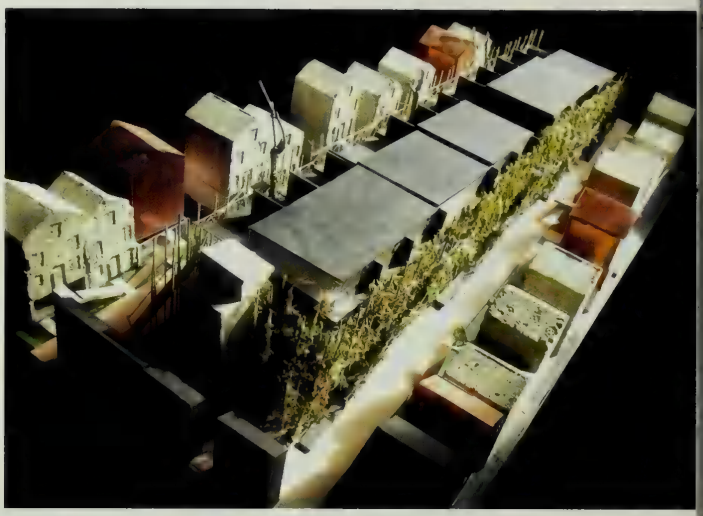
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In wake of Paris riots, public housing authority builds more, and better, projects to stem disaffection

If last year's Paris riots were horrific, they weren't surprising. The *banlieue*—suburbs like St. Denis, Poissy, and Clichy-sous-Bois—are pockets of concentrated immigrant poverty and block-style buildings long regarded as tinderboxes for trouble.

Paris has begun building more affordable housing within its borders to reduce the social isolation of those outside. While offering public-housing tenants an alternative to the *banlieue*, the move addresses the city's own growing squatter population, which suffered from a slew of fires in the outer rings at the end of the summer. Whereas about 80 percent of lodgings in some peripheral neighborhoods are public, no more than a quarter of many Paris neighborhoods comprise public housing.

The tripartite Batignoles Planchées scheme by Edouard François (right); gold-colored aluminum panels in 38 Boulevard Henri IV by Guillaume Neuhaus and Laurent Niget (below right); and Lacaton + Vassal's reimagining of the Tour Bois le Prêtre (below), all commissioned by OPAC.







Almost all of Paris's social housing authorities have revamped their building strategies over the past five years. The shift dates to the inauguration of Mayor Bertrand Delanöe, a socialist and a design advocate who, with others, knew the *banlieue* was an issue long before the riots. The Office Public Patrimoine Construction Réhabilitation Aménagement Politique, or OPAC, is the largest of these agencies and offers a good case study. Whereas about 1,500 new apartments were built per year prior to the new system, that number is now about 4,000, says Helen Schwoerer, OPAC's head of public housing architecture. Two-thirds of OPAC's work is renovation and extension, and the rest is new construction.

The city's new focus on social housing has also distributed projects over a larger area. Officials from OPAC and other agencies are working to ensure that all quarters contain 20 percent public housing, and they have announced that new buildings in wealthier quarters must include at least 25 percent affordable housing.

The city is also building better social architecture, aiming to reverse social housing's negative stigma, Schwoerer says. OPAC has added more architects to competition juries (competitions are mandatory for all public projects in France) and has begun casting a much wider net to find talent. Whereas the same firms used to build most of the city's public housing projects, now the list includes innovative, international, and young firms, such as Lacaton + Vassal, Francis Soler, Edouard François and Roland Castro. Many jump at the chance to build projects in the historic heart of the city, where new projects are almost impossible to come by.

Not all projects are stellar, but the overall results are impressive. Instead of towering blank walls framing empty courtyards, fairly low-budget projects are often animated by creative plans, forms, and materials.

An OPAC housing project being built inside a 19th-century school on Boulevard Henri IV in the historic 4th arrondissement is a good example. Architects Guillaume Neuhaus and Laurent Niget will maintain the building's landmark exterior, but they will transform the interiors in almost every way: The interior courtyard will be reinstalled and clad completely in gold-colored aluminum panels, a reference to period gilt interiors. Once-cramped apartments will be rebuilt and enlarged with lofty ceiling heights to accommodate large families. Larger windows will allow more light and improve ventilation.

A project by local architect Edouard François in the 20th arrondissement, called Batignoles Planchées, emulates its old neighborhood's livery model. It will be divided into three long volumes separated by narrow pedestrian alleyways. The outer buildings will comprise a series of attached houses of varying heights and materials, including terra-cotta, brick, concrete, and zinc, that evoke the variety of a tiny village. The project's inner section will include a concrete communal building surrounded by vegetation, with wooden stairways and balconies culminating in a roof garden. François persuaded officials to support the concept, which is radical for the city, where strict



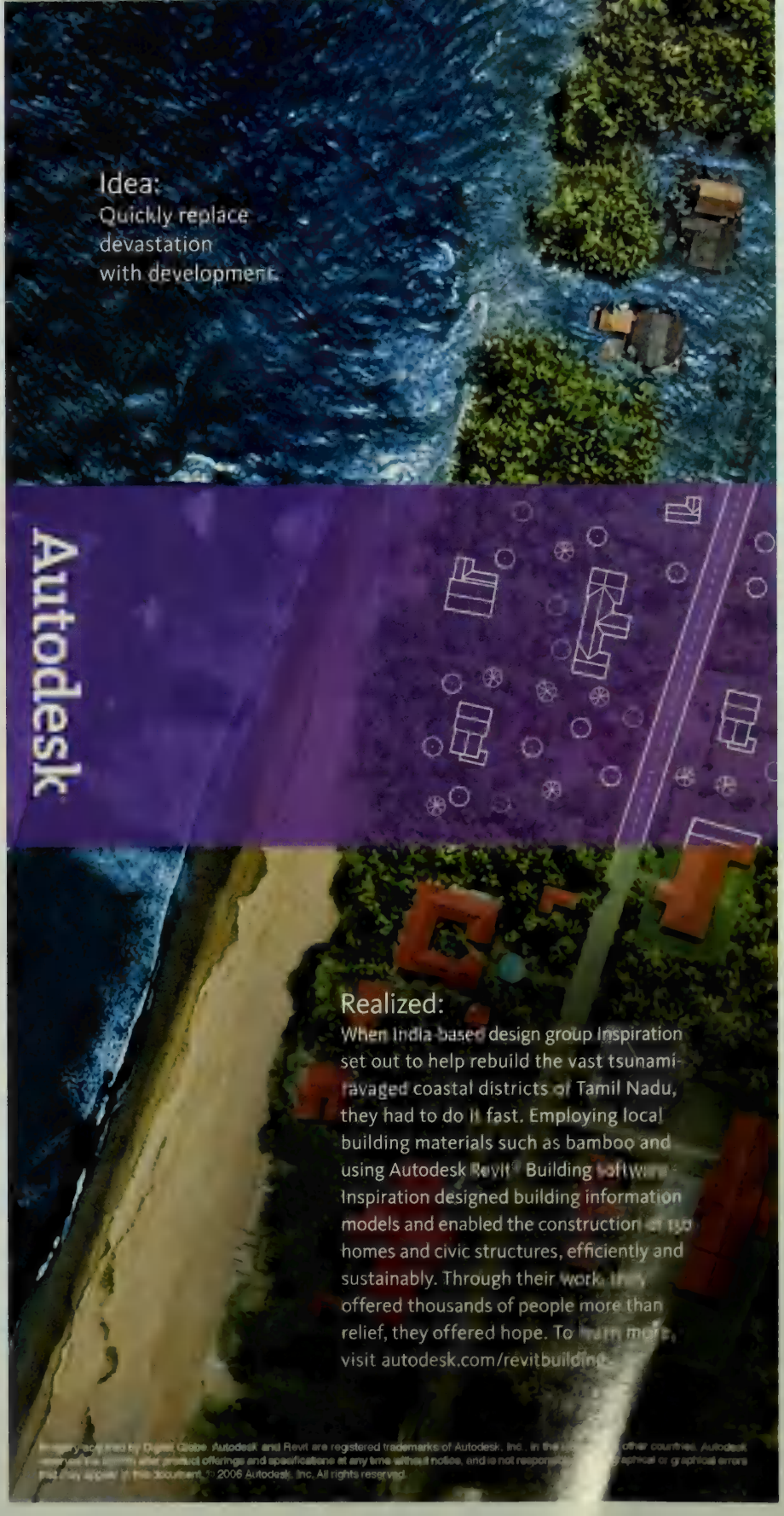
n Massena, Beckmann-N'Thepe is designing an inusual concrete tower for a non-OPAC agency.

ules usually prohibit rural styles in the urban grid. "We should never be afraid to test the offi-ials," he says. Indeed, François is known in Paris as an architectural renegade: In 2004, he com-leted the social housing Flower Tower, in which extruded concrete floor slabs sprout 380 tall bamboo plants from massive concrete pots.

In 2005, Lacaton + Vassal and architect Frédéric Druot beat out competitors Dominique Perrault, Roland Castro, and others to reshape he Tour Bois le Prêtre, a 17-story housing tower on the city's northern edge designed by architect Raymond Lopez in 1957. The team will cut away most of the thick concrete facade's partitions, nstalling balconies and large sliding windows in heir place. Besides opening the apartments to more natural light, the units are being significantly enlarged and opened, and the firm will install new heating, ventilation, and electric systems.

OPAC and other agencies are not exactly architectural trailblazers, but they are certainly mproving. Meanwhile, in the *banlieue*, the situa-ion is more dire. Small, mostly poor towns do not benefit from the financial and management advantages of Paris. Although places like Bois-Colombes, Villeneuve-la-Garenne, and Clamart have all rebuilt their town centers, most point out hat for greater things to happen here, the best hope is the implementation of a much-talked-about "Grand Paris," in which the city takes over ts outer periphery. Until then, observers hope hat improving social housing inside the city will stave off a sense of alienation and resentment. But only time will tell. *Sam Lubell*

(For more about this subject, log on to our Web site, archrecord.construction.com.)




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Remembering Peter Blake, 1920–2006

eter Blake, who died on December 5 at the age f 86, influenced the course of modern architec- ure in so many ways that it's hard to sort them ut. For more than half a century, he applied his imble intelligence to the field through overlap- ing roles as architect, magazine editor, museum urator, educator, columnist, and author of some ooks that have never ceased to sell.

A compact man, Blake was a coil of energy. e talked briskly, almost impatiently, and moved bout abruptly. He was the archetypal multi- asker—simultaneously writing, editing, etworking, dealing with clients, and planning his ext professional coup.

Blake was one of the numerous émigrés om Hitler's Europe whose impact on the world f architecture and America's place in it was nmense. He was born Peter Blach in 1920 in erlin to an affluent Jewish family that scattered other countries with Nazism's rise. He ttended a Quaker School in England, and began study architecture in London before joining the est of his family in the U.S. and enrolling at the niversity of Pennsylvania in 1941. It wasn't until 949 that he received his B.Arch. from the Pratt nstitute in New York. In 1944, he simultaneously ecame an American citizen, joined the U.S. rmy, and changed his name to Blake.

From 1948 to 1950, Blake served as curator f architecture and industrial design at the luseum of Modern Art. In 1950, he moved on to he staff of *Architectural Forum*, becoming chief ditor in 1960. In 1965, Time Inc. transferred the agazine to the nonprofit Urban America.

It was not easy to get past Blake's charac- eristic reserve. He would never take part in a ace-to-face disagreement, but would discover e had to make an urgent phone call. And yet lake had developed a remarkably keen sense of ow to connect to readers. He chose appealing ubjects and knew how to make what really attered appealing to them. He insisted on ccessible writing, despising professional jargon; arti" could never appear in the *Forum*.

When *Forum* seemed headed for extinction n 1972, Blake drummed up financial backing to aunch *Architecture Plus*, a magazine with roader arts coverage, and which lasted three ears. He then wrote columns for *New York* dur- ng the 1970s and for *Interiors* until 1995.

Blake's books encapsulate his flair for com- elling subjects and memorable titles. *The Master Builders: Le Corbusier, Mies van der*



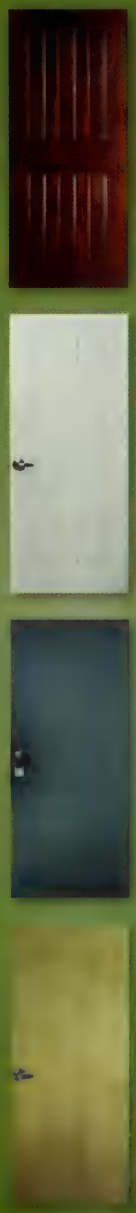
Rohe, Frank Lloyd Wright has been reissued repeatedly for generations of readers. *God's Own Junkyard: The Planned Deterioration of America's Landscape* was an acerbic companion to the other environmental protests of its time. *Form Follows Fiasco: Why Modern Architecture Hasn't Worked* joined a parade of failure-of-Modernism tracts, but pleaded for the Modernism movement to retrieve its original ideals. *No Place Like Utopia: Modern Architecture and the Company We Kept*, written in 1993, was his professional memoir.

For decades, Blake maintained an architectural practice, which produced about 50 modestly scaled works, most with a succession of partners. Perhaps the best expressions of his no-nonsense Modernism were the two houses he built in the Hamptons for himself and his family: the ingenious 24-foot-square Pinwheel House of 1953 and the elegant, slightly larger Blake House of 1960.

His skills as curator and designer were combined in several exhibitions, including Berlin's *Amerika Baut*, in 1957, and an exhibition of U.S. architecture in Moscow for the U.S. State Department, in 1959.

After *Architecture Plus* closed in 1975, Blake assumed prominent positions in education, chairing architecture departments at the Boston Architecture Center (1975–79) and Catholic University in Washington (1979–86). He continued to teach at Catholic until 1991, then taught for another decade at Washington University, St. Louis, and at the New School in New York. *John Morris Dixon, FAIA*

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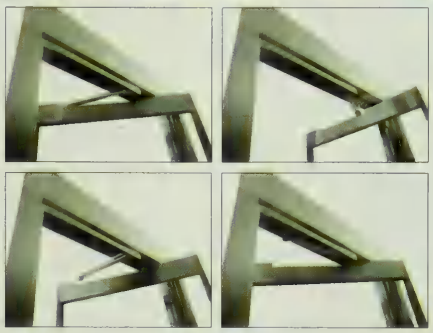
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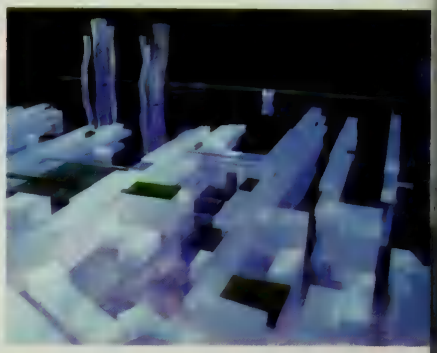
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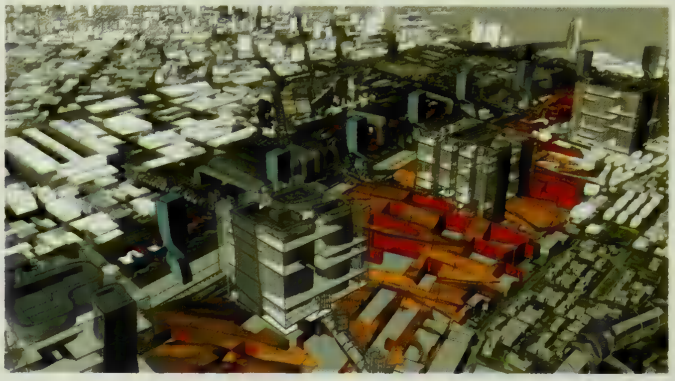
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In contest, architects envision cities 100 years out

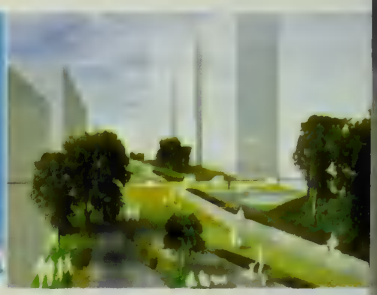
This fall, in a thought-provoking publicity stunt, The History Channel invited an array of U.S. architects to make no small plans. To promote the series *Engineering an Empire*, the network hosted three events in which architects competed against each other to propose a "city of the future."





The "vanes" that punctuate Architecture Research Office's water-logged version of Manhattan (above). Eric Owen Moss transforms L.A. infrastructure into construction zones (left). An UrbanLab-designed Eco-Boulevard shuttles pedestrians and recycles storm water (below).





New York, Chicago, and Los Angeles served as case studies for the designers. A shortlist of competitors was given just one week to conjure up a vision of their subject city 100 years from now, and realize it in renderings, models, and explanatory text. The city challenges began in late October when 10 New York teams were selected for the marathon charrette, which culminated in presentations at Grand Central Terminal; the first-round exercises ended December 12 with the L.A. contest. Each of the three winners was awarded $10,000, and the trio are now up for a national honor that would double the purse.

Anxiety over global warming informed most of the New York entries, yielding several schemes for artificial archipelagoes. The winning entry from Architecture Research Office also presumed a need for radical coping mechanisms: In its luminescent model of a 22nd-century Big Soggy Apple, a new building type, called a "vane," replaces the capacity lost from streets flooded by rising seas.

The famous phrase "Water, water, everywhere" inspired Chicago's representative, if to very different ends. UrbanLab's project, "Growing Water," grapples with increasing demand for ever-dwindling supplies of fresh water. A series of "Eco-Boulevards" would treat waste and storm water using natural filters, such as micro-organisms and fish, ultimately closing the city's water loop. The plan seems entirely possible but for some amazing feats of eminent domain, in part because the city counts several massive park and water-engineering projects as precedents.

While melting glaciers threaten to inundate Los Angeles, too, Eric Owen Moss Architects' winning submission looked at the future through a social lens. Calling the city's infrastructure racially and economically divisive, Moss unveiled a plan to "build over, under, around, and through the freeways, rivers, power grids, and tracks, to use the existing rights of way as the foundations for new, innovative construction."

National voting takes place online from January 2 to February 2 at www.history.com/designchallenge. To aid Web surfers in evaluating the three finalists, the site will include commentary from architect Daniel Libeskind, FAIA, the national juror. The victor will be announced in mid-February. *David Sokol*

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)esign

ssembledge+: To live and design in L.A.



For David Thompson and Kevin Southerland, principals of Los Angeles-based firm assembledge+, early influences have had a direct impact on the direction their nine-year-old, six-person firm is taking. Thompson, whose father is an architect, was raised in the heart of Hollywood, and Southerland grew up in suburban Southern California just as the sprawling valley was under development. Both took architecture/model-making classes in their public high schools (lets hear it for California schools!), and have traveled enough to realize just what a stimulating place they are lucky enough to call home.

Thompson began his career working with prominent L.A. firms such as Lorcan O'Herlihy Architects and Syndesis, and Southerland worked for Frank O. Gehry Architects, Neil Denari Architects, Gensler, and then also O'Herlihy. Inspired by entrepreneurs like David Hertz, principal of Syndesis, Thompson began building furniture. "I thought furniture would be my calling," he says, "but it led me to start assembledge+ and move to New York City for three years before coming back to L.A." O'Herlihy's firm was growing rapidly, and he asked Thompson to work for him on a contract basis. Thompson credits O'Herlihy's generous business practices for giving assembledge+ momentum, and when he and Southerland decided they wanted to take the firm a step further, and off the beaten track, by going into development, they had O'Herlihy's blessing. "Development seemed a natural evolution of our interests," says Southerland. "David and I are so intrigued by the potential of buildings and neighborhoods. We thought if we could develop and design the spaces, we could really differentiate our firm from other practices."

They were right. While other emerging firms rely on additions and renovations, and spend time submitting for competitions, assembledge+ takes another track. "I'd rather buy a piece of dirt and make something happen with it than spend time pursuing competitions," says Southerland. "More than anything in the world,



Gramercy 7 Lofts, Los Angeles, 2008
This seven-unit loft condominium has open-plan lofts with 16-foot ceilings. Located in an eclectic L.A. neighborhood, each unit has a private roof deck.





Office 8476, Downey, Calif., 2008
Located on a major suburban thoroughfare, this real estate office will be set on a thin concrete plinth 18-inches above the site.

I want to build stuff." Thompson agrees. "We always come back to the way materials are put together," he says. And they're committed to putting them together with a conscience. Southerland, who headed the sustainability design committee at Gensler, says assembledge+ prescribes to what he calls "subversive sustainable design," explaining, "If a client needs to choose from five carpet tiles, show them five that are made from recycled materials."

And while sustainable principles are just part of the everyday at assembledge+, so is a love of the urban fabric of L.A. The team's Gramercy 7 Lofts, a seven-unit condominium that broke ground in late 2006, promises to demonstrate their Modernist aesthetic, reveal their love of craft, and help to bring much-needed mid-density housing to its neighborhood. Not least, each unit will have a private roof deck with 360-degree views. "This lifestyle and climate informs a huge part of our design process," says Thompson. "Walls of glass, blurring of indoors and out, views of the sky and surrounding landscapes—we are so psyched to get up in the morning knowing we get to do this kind of work." *Ingrid Spencer*



Ridgewood House, Los Angeles, 2006
This 2,400-square-foo home is designed for indoor/outdoor living with a porch, decks, op planned living areas, a floor-to-ceiling glass windows and doors.



Sunset Plaza Residence, Los Angeles, 2007
Above the Sunset Strip, this 5,000-square-foot house opens up to the landscape. Simple forms and a warm material palette evoke a clean, Modernist aesthetic.

For more photos and projects by assembledge+, visit archrecord.construction.com/archrecord2/.

Work

Mentors and guts keep a young architect flying solo

Christian Wassmann is wondering whether or not to sign a new lease. In Manhattan, with its breathtaking rents, this is no small decision. While getting the extra office space would give him more room (Wassmann and his project-basis employees are used to working in an office carved out of his apartment), it could also force him to take on some work he'd otherwise have the luxury of passing up. If this is the first growing pain for a young architect who has seamlessly transitioned from project architect for Steven Holl to principal of his own practice, it's not so bad. Only 32 years old, Wassmann has a pedigree that explains his success. After moving to the United States from Switzerland, he began working for Steven Holl because Holl was (and still is) his favorite architect. He has also worked on side projects with another master of American design, artist Robert Wilson, for 10 years.



It seems that the mentorship Holl and Wilson have provided—from their influential aesthetics to their willingness to work with Wassmann outside of a standard full-time position—has made all the difference in his career. About leaving Holl's firm, Wassmann says, "He understood [my decision to leave the office], and encourages me to this day." While Wassmann left the firm in [illegible] 2005, he continued freelancing with Holl to finish a hotel in Austria, and the following winter he co-taught an architecture class with him at Columbia University.

This strong support lessened the anxiety when Wassmann left Holl's firm without projects in hand. He quickly picked up a diverse group of projects, including a renovation of a radio station and several exhibition designs for the Vitra showroom in Manhattan. While Wassmann relishes the brief time it takes to produce exhibitions ("they're like architectural one-night stands"), he has a number of longer-term projects on the boards, including a renovation of a 1930s house in Miami, Florida. Much like his other mentor, Wilson, whose work has touched nearly every art form, Wassmann says he wants "to continue to do everything from books to exhibition design to writing and teaching, building houses, furniture, theatrical productions, film, and art projects—the full scale of design."



Wassmann (left, in white shirt, and above, at right), Robert Wilson (left, at far right, and above, at left), and the team planning the Noguchi exhibition in 1999 at the Watermill Center on Long Island.

Wassmann's strategy for accomplishing his work has already been fruitful, which may explain his hesitation to opt for the new office and the changes it might bring. He still sometimes attends pin-ups at Holl's office because they can be stimulating, but now that he is no longer part of the structured life of an office, he prefers his own less-orthodox method of getting his work done. "The best ideas," he says, "come late at night dancing and are then sketched on a piece of paper." *Diana Lind*

For more information on Christian Wassmann and his work, visit archrecord.construction.com/archrecord2/.



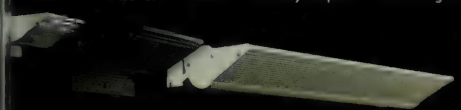
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A treasury of words for architects to ponder

Critique

By Robert Campbell, FAIA

ome people collect stamps, some postcards. An architect friend collects now globes, those glass spheres you turn upside down to drop a frosty eluge on the scene inside. Another collects tiny models of famous build-ngs, the ones you find in tourist shops. The late Charles Moore collected lmost everything.

I collect quotations. For this month's Critique, I've made a little nthology of some of them. A few are famous, most are not. In one way or nother, they're all about architecture.

I'll begin with the nicest thing ever said by a client to an architect:

ou did well, Bernardo, in lying to us about the expense involved in the ork. If you had told the truth, you could never have induced us to spend o much money, and neither this splendid palace nor this church, the finest all Italy, would now be standing. Your deceit has built these glorious tructures, which are praised by all except the few who are consumed by nvy. We thank you and think you deserve especial honor among all the rchitects of our time.—*Pope Pius II to Bernardo Gambarelli, the architect f the pope's buildings in Pienza*

kay, that one should put you in a good mood. Here are the rest. They're no particular order:

n Nebraska, chemicals and irrigation deplete and poison the aquifer in rder to create surplus crops which the government subsidizes.
–Richard Jackson

aste is the death of art.—*Walter Sickert*

rt is what nature is not.—*Pablo Picasso*

n expert is a person who avoids the small errors as he sweeps on to the rand fallacy.—*Benjamin Stolberg*

ll traveling becomes dull in exact proportion to its rapidity.—*John Ruskin*

lumanity is permanently threatened by two dangers: order and disorder.
–Paul Valery

Ve have sold our urban birthright for a sorry mess of motorcars.
–Lewis Mumford

very time a student walks past a really urgent, expressive piece of archi-ecture that belongs to his college, it can help reassure him that he does ave that mind, does have that soul.—*Louis Kahn*

Vhen the materials are all prepared and ready, the architects shall appear. swear to you the architects shall appear without fail … —*Walt Whitman*

Contributing editor Robert Campbell, FAIA, is the Pulitzer Prize–winning rchitecture critic of The Boston Globe.



Pope Pius II (1405–64; dates on print above are incorrect) transformed his home village of Corsignano, in Tuscany, into the ideal Renaissance town of Pienza with a series of buildings designed by Bernardo Gambarelli, known as Rossellino.

Rome reminds me of a man who lives by exhibiting to travelers his grandmother's corpse.—*James Joyce*

Architects are cannibals if they are not parrots.—*Hugh Casson.*

Inherent in the concept of home is the concept of wandering.
—Martin Heidegger

Building certainly ought to have the Attribute of eternal, and therefore the only thing uncapable of new Fashions.—*Christopher Wren*

The familiar is what guides us to invention…. It is a great pity that students are always asked to "invent" by staring at a blank piece of paper. Invention exists only in the context of the familiar, and schools should teach such bread-and-butter buildings of familiar life.—*Demetri Porphyrios*

[Design should be] modest and not too grandiose in scale, not too logical in form; a reasonable compromise between beauty and utility, neither overstressing beauty until it degenerates into ornament nor overstressing utility until it becomes bare and hard.—*Frank Pick*

Critique

The Work of art is so frightened of the world at large, it so needs isolation in order to exist, that any conceivable means of protection will suffice. It frames itself, withdraws under glass, barricades itself behind a bullet-proof surface, surrounds itself with a protective cordon, with instruments showing the room humidity, for even the slightest cold would be fatal.—*Daniel Buren*

What, then, are the requisites of an attractive neighborhood besides good neighbors, and such institutions as are tolerably sure to be established among good neighbors? The most important, I believe, will be found in all cases to be that of good out-goings from the private grounds, whether with reference to social visiting, or merely to the pleasure and healthfulness of occasional changes of scene, and more extended free movement than it is convenient to maintain the means of exercising, within private grounds.
—*Frederick Law Olmsted*

THE NEED FOR THE SUPERFLUOUS IS AS OLD AS MANKIND ... BEFORE MAN BUILT HUTS FOR HIMSELF, HE PAINTED CAVES.

Architecture can only be sustained today as a critical practice if it assumes an arrière-garde position, that is to say, one which distinguishes itself equally from the Enlightenment myth of progress and from a reactionary, unrealistic impulse to return to the architectectonic forms of the pre-industrial past. A critical arrière-garde has to remove itself from both the optimization of advanced technology and the ever-present tendency to regress into nostalgic historicism or the glibly decorative. It is my contention that only an arrière-garde has the capacity to cultivate a resistant, identity-giving culture while at the same time having discreet recourse to universal technique.—*Kenneth Frampton*

Design is, in essence, giving form to values.—*Reuben Rainey*

The madman is the man who has lost everything except his reason.
—*G.K. Chesterton*

But taking the chance of making a complete fool of himself—and, sometimes, doing so—is the first demand that is made upon any real critic ... "Principles" or "standards" of excellence are either specifically harmful or generally useless; the critic has nothing to go by except his experience as a human being and a reader.—*Randall Jarrell*

Experiment escorts us last—
His pungent company
Will not allow an Axiom
An Opportunity—*Emily Dickinson*

I never saw a building addition I didn't like.—*Rafael Moneo*

Men are free when they are in a living homeland, not when they are straying and breaking free ... Men are free when they belong to a living, organic, believing community, active in fulfilling some unfulfilled, perhaps unrealized purpose.—*D.H. Lawrence*

Appearances are never deceiving.—*Paul Klee*

Rhetoric is [the] will trying to do the work of the imagination.
—*William Butler Yeats*

A true artist is born with a unique voice and cannot copy; so he has only to copy to prove his originality.—*Raymond Radiquet*

The well-rooted house likes to have a branch that is sensitive to the wind, or an attic that can hear the rustle of leaves.—*Gaston Bachelard*

Architecture cannot progress by the fits and starts that a succession of revolutionary ideas involves. Nor, if it exists perpetually in a state of revolution, will it achieve any kind of public following, since public interest thrives on a capacity to admire what is already familiar and a need to label and classify.
—*J.M. Richards*

I cannot know anything at all unless I symbolize it. We can only conceive being, sidle up to it by laying something else alongside. We approach the thing not directly but by pairing, by apposing symbol and things.
—*Walker Percy*

Heaven is not built of country seats
But little queer suburban streets.—*Christopher Morley*

A conference is a gathering of important people who singly can do nothing, but together can decide that nothing can be done.—*Fred Allen*

The implication in a Miesian object is of domination by the maker over the eyes of those who passively appreciate his or her creations, whereas a more uncertain object should invoke reciprocal intervention.—*Richard Sennett*

One should forgive one's enemies, but not before they are hanged.
—*Heinrich Heine*

"Sentimental" refers to a later recreation of an earlier mode.—*Northrop Frye*

Without the site, without a singular, unique site, architecture doesn't exist ... The site is always expectant, awaiting the arrival of an event that will allow it to play an active role in world history ... As such the site is an expectant reality, always awaiting the event of construction, through which its otherwise hidden attributes will appear.—*Rafael Moneo*

[In a city] there must be regularity and fantasy, relationships and oppositions, and casual, unexpected elements that vary the scene; great order in the details, confusion, uproar, and tumult in the whole.—*Abbe Laugier*

Architecture is landscape in drag.—*Antoine Predock*

If you look at a building and the windows are the right size, it may or may not be architecture. But if the windows are definitely too big or too small, you may be almost certain you are in the presence of a work of architecture.
—*Gilbert Scott*

The need for the superfluous is as old as mankind ... Before man built huts for himself, he painted caves.—*Josep Lluis Sert*

Never let greed for glory impel you to embark rashly on anything that is unusual or without precedent.—*Leon Battista Alberti*

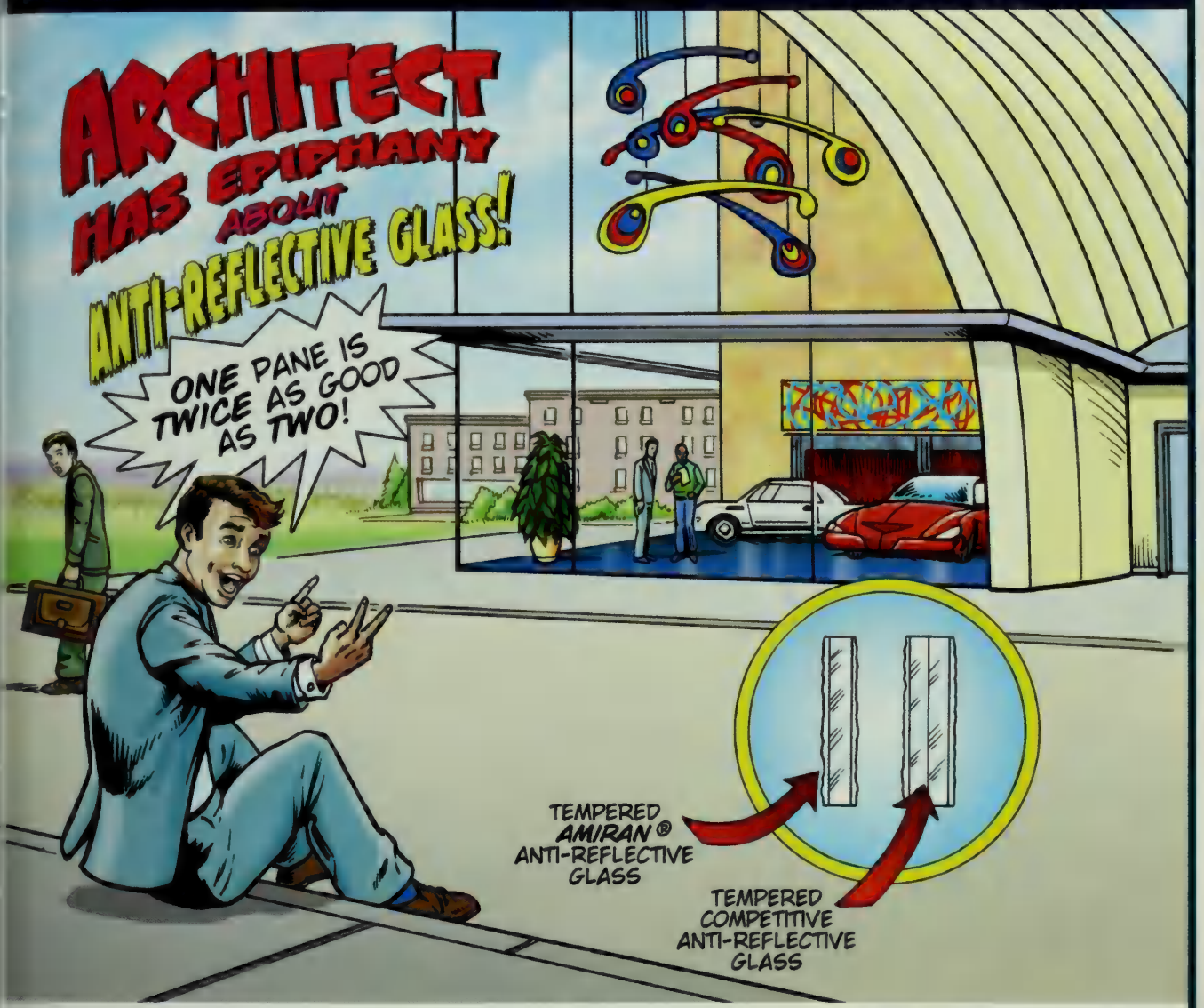
While a poet or a painter can forget about their age and be great in the solitude of their study and studio, an architect cannot exist in opposition to society.—*Nikolaus Pevsner*

Every version of historicism expresses the feeling of being swept into the future by irresistible forces ... Historicism claims that nothing is of greater moment than the emergence of a really new period.—*Karl Popper*

Play needs firm limits, then free movement within these limits. Without firm limits there is no play.—*Eric Ericson*

We can say that architecture always contains a human error, and in a deeper view, it is necessary; without it the richness of life and its positive qualities cannot be expressed.—*Alvar Aalto*

Architecture is not only about domesticating space.... It is also a deep defense against the terror of time.—*Karsten Harries* ■



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Looking East: The buildings and cities of Asia grab the spotlight

Books

ew Architecture in China,
' Bernard Chan. New York: errell Publishers, 2005, 40 pages, $50.

ainland China has become a play-ound for architects from around e world. Bernard Chan, who stud-d at the Architectural Association London and lectured at the niversity of Hong Kong, offers a oad look at the awakening giant's ew buildings and projects in this ndsome survey.

After a general introduction, nan looks at more than 100 proj-cts, both schemes on the boards nd recently completed buildings. viding work according to building pe—culture, leisure, and sport cilities; convention centers and ansportation structures; houses nd housing; schools, colleges, and praries; and offices and shops—nan devotes a single spread to ach project, be it good or bad, and covers a wide swath of new, mostly Western, often bombastic architecture. He includes many "flagship" buildings that have been publicized around the world, such as OMA/Rem Koolhaas's CCTV headquarters, Herzog and de Meuron's Olympic Stadium, and Paul Andreu's National Opera House, all in Beijing, and the first two phases of Wood & Zapata's Xintiandi complex in Shanghai. Page after page shows works of awesome scale: vast convention centers, huge stadiums and sporting facilities, and giant mixed-use towers.



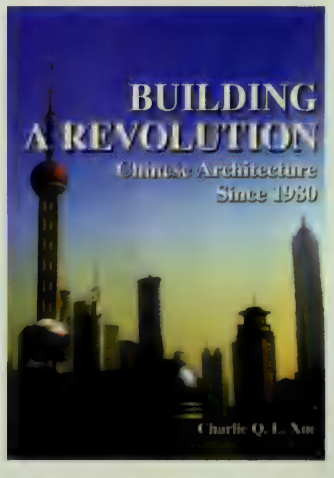
Alongside colossal works by Western architects is a smattering of projects by Chinese designers, such as Qingyun Ma's firm MADA s.p.a.m., Yung Ho Chang, Atelier Deshaus, Jiakun Architects, and Ai Wei Wei. Photographs, computer renderings, and succinct written descriptions make clear that two kinds of new architecture are emerging in China: massive concoctions, usually by foreign architects, with mind-boggling engineering and expansive glass curtain walls; and a quieter, smaller-scale architecture of intimate office buildings, private residences, cultural institutions, and shops designed by local architects. This native, organic strain is often overlooked by outside observers. Alongside colossal works like RMJM's pair of skyscrapers in Suzhou, melodramatically named the Gate to the East, or Foster and Partners' birdlike Beijing Airport, China's relatively diminutive projects, such as Qingyun Ma's Father's House in Lantian, or Jiakun Architects' Sichuan Fine Arts Institute in Chongqing, really shine. *Daniel Elsea*

Building a Revolution: Chinese Architecture Since 1980,
by Charlie Q.L. Xue. Hong Kong: University of Hong Kong Press, 2006, 232 pages, $60.

Architects in China have been building a revolution since Deng Xiaoping opened the country in 1980, ushering in exponential economic growth and a huge building boom. Charlie Q.L. Xue traces the development of architecture in mainland China from a Chinese perspective, concentrating on the evolution of indigenous architects and vernacular design and tracing the development of Chinese architectural practices and how they've been affected by events at home and abroad.

Prior to 1980, architecture in China was held back by decades of turmoil. But these years produced substantial building activity, and Xue introduces us to pre-1980, 20th-century architects of museums, civic centers, and residential complexes across China. He gives prominence to little-known designers, such as Qi Kang and Dai Fudong, whose building styles were fostered by political isolation, a rich cultural tradition, and Socialism. Xue's chosen buildings range from the pre-1949 Republican period, which blended modern techniques with traditional Chinese motifs, to the 1950s and '60s, when Communism inspired ceremonial structures, usually composed of large volumes with interlocking geometries.

Most interesting is Xue's analysis of how the past influenced the rising generation of young Chinese architects. Xue links them with the earlier closed and rigid world and

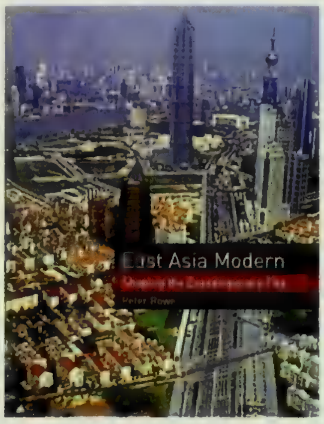


includes in his narrative such lesser-known architects as Zhang Lei, Miao Pu, and Zhao Bing. Xue calls them pioneers, along with such better-known designers as Yung Ho Chang, Liu Jiakun, and Qingyun Ma. *D.E.*

East Asia Modern: Shaping the Contemporary City,
by Peter G. Rowe. Lexington, Kentucky: Reaktion Books, 2006, 256 pages, $27.

In *East Asia Modern*, Peter Rowe, the former de[illegible] of Harvard's Graduate S[illegible] of Design, examines the co[illegible]ex, sprawling

Books



metropolises of Asia. He singles out six megacities: Beijing, Hong Kong, Seoul, Shanghai, Singapore, and Tokyo. Each has a unique character and is at a different stage of development, but Rowe groups them together, he writes, because they share a "Confucian" history and collectively a compelling story of growth and maturation.

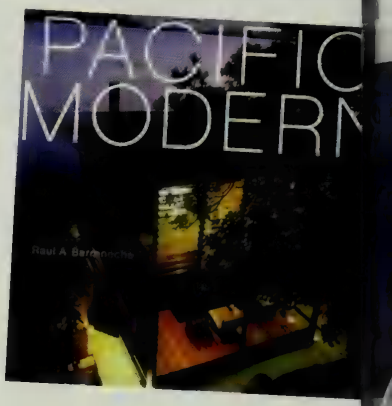
All six cities present a narrative of breakneck growth, high densities, and enormous planning challenges that make many of the great cities of the West seem almost pastoral by comparison. With 30 million people, metropolitan Tokyo is the world's largest city; Singapore and Hong Kong are compact city states at cultural crossroads; Beijing and Shanghai face intense pressures of growth; and Seoul is emerging as a metropolitan powerhouse in its own right. Intensely vertical Hong Kong, gigantic Tokyo, and burgeoning Beijing and Shanghai are all laboratories of how the urban organism copes with the multiple pressures of modern life.

Rowe compares the six cities' differing responses to such critical issues as landmark preservation, housing, urban sprawl, and transportation. He concludes that Asia's experience with urbanization is different from the West's. To the outside observer, urban Asia seems endemically chaotic and messy, but Rowe discovers that the development of these six cities has been more orderly and planned, more top down, than is initially apparent. His book holds lessons for everyone concerned with rapidly growing cities. *D.E.*

Pacific Modern,
by Raul A. Barreneche.
New York: Rizzoli, 2006,
244 pages, $45.

In his introduction to *Pacific Modern*, a sumptuous presentation of 25 recent homes along the South Pacific, Raul Barreneche suggests there is a commonality to these structures beyond their location on a map. The houses "share a kindred modern spirit.... They capture the boundless sense of openness and optimism that extends up and down the western shores of the great Pacific Ocean."

The collection includes work by Pritzker Prize winner Glenn Murcutt, whose barnlike Bowral House in Kangaloon, Australia, is perhaps the most thoughtfully indigenous house here, with its curving wall of corrugated steel that serves as a windbreak.



There's also creative work by such lesser-known (in America) designers as Patrick Clifford and Alexander Michael, both of whom designed inventive weekend homes for themselves: Michael's stores rainwater in corrugated-metal

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drums that frame the entrance, while Clifford manages to make his three-story retreat on a forested hill outside Auckland seem like a taut wooden lantern. In all three cases, you feel the absence of clients pushing for predictable chic.

So far so good. But with most of the other homes, we're shown an unfortunate facet of what Modernism has become: a lifestyle choice for the well to do, where pristine angular homes are sited in ways that maximize views. As a result, beyond the localized quirks and the soft-blue settings (is there anything more languidly seductive than the New Zealand coast?), *Pacific Modern* feels a lot like so many other residential architecture books today—and a long way from the days when the Modern movement was fresh, and true believers turned to it as something more than a style. *John King*

Architecture Tomorrow, *by Francis Rambert. Paris: Terrail, 2005, 256 pages, $55.*

The title notwithstanding, *Architecture Tomorrow*, rather than offering a window into the future, is a superficial but handsomely illustrated survey of high-style buildings constructed around the world during the first five years of this century. The roster of designers consists of such firmly established architects as Renzo Piano, Coop Himmelb(l)au, and Jean Nouvel, who are creating iconic towers from Barcelona to Beijing. The book holds few surprises. Aside from the ever-clever Dutch firms of MVDRV and UN Studio, there is the usual superstar stable of Zaha, Rem, Frank, and Herzog & de Meuron. Most of Rambert's choices are fellow Europeans. The book shows Modernism's classic forms soldiering on, although challenged by bloblike, spongy Expressionist compositions. "The new buildings, sometimes odd but always very much themselves, reveal new shapes, new materials, and new spaces," says the author.



Rambert, a renowned French critic, offers grandiloquent pronouncements on the state of Modern architecture. But overall his text is painful to read and unilluminating. (Is it the translation or just the way French architectural theorists write?) Rambert divides his book into seemingly arbitrary sections freighted with fatuous headings such as "Between Image and Icon." Like too much architectural writing, Rambert's is hyperbolic and windy. Isn't there a simpler, more revealing way to say, for instance, "Hybridisation is what the opening of the new century is all about, and the result is alternatives to globalisation: a proliferation of buildings that are unique and specific and not ashamed to use glamour to change our perceptions; and of manifesto-style 'installations' that take architecture to the brink of contemporary art"?

The captions are as forgettable as the text, but the 240 color photographs are almost worth the price of admission. Rarely, however, does Rambert devote more than two images to any building. This can be frustrating, as is the absence of plans and an index. *William Morgan*



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Dressing Up Fashion, Dressing Down Architecture

Exhibitions

By Russell Fortmeyer





kin+Bones: Parallel ractices in Fashion and rchitecture. *Curated by rooke Hodge. At the Museum of ontemporary Art, Los Angeles ntil March 5, 2007). Travels the National Art Center, Tokyo, ne 6–August 13, 2007.*

fter the Rem Koolhaas–designed rada Soho store in New York suf-ered fire damage—including $5 illion in inventory—in January 2006, writer on the snarky, Manhattan edia Web site *Gawker* wondered hether we could "expect ostenta-ous design to bounce back from a it like this."

Of course, the store re-pened, but *Gawker*'s sarcastic emark, implying an equivalence etween fashion and architecture, eveals a deeper cynicism toward rchitecture's enthusiastic embrace of conspicuous consumption. A good many consumers consider architecture just another tab in a glossy design magazine, sharing space with furniture, products, and, of particular interest, fashion. This is apparently quite distressing news to people who feel architecture should avoid fashion and strike a serious tone, in keeping with the times.

The new exhibition at the Museum of Contemporary Art (MoCA) in Los Angeles, *Skin+Bones: Parallel Practices in Fashion and Architecture*, could have focused on any number of provocative issues, but instead its intentions stay firmly



The innovative structural elements of Herzog & de Meuron's 2000–03 Prada Aoyama Tokyo Epicenter (above and above left) only superficially relate to Japanese designer Yoshiki Hishinuma's 2004 Inside-Out 2Way Dress (left).

and predictably rooted in the formal world of practice. In a sleek, white-walls installation designed by Calvin Tsao and Zack McKown, *Skin+Bones* presents dresses on mannequins and videos of fashion shows interspersed among architectural models, drawings, renderings, videos, and installations, all in generic categories like "Shelter," "Geometry," "Creative Process," "Construction-Deconstruction-Reconstruction," "Tectonic Strategies," and "Identity" (come on, isn't fashion always about constructing identity?).

The first few galleries are given over to single installations of dresses by a handful of fashion designers, such as Viktor & Rolf and Ralph Rucci. The third gallery presents Diller+Scofidio's 1993–98 *Bad Press: Dissident Housework Series*, a conceptual art project of white, folded and ironed men's shirts displayed in a long glass case. Not until the fourth gallery does the show ease into its rhythm of alternating between conventional installations of architecture documentation and the white-pedestal-mounted fashion parade.

Terms like *scale*, *materiality*, *surface* (skin), *structure* (bones), and *representation* thread through the show, while *folding*, *pleating*, and *layering* also crop up—fashion terms co-opted by archi-speak in the late 1980s and early 1990s. The show makes only half-hearted attempts to bridge the wide practical gaps between, say, the surface printing on the curtain wall of Herzog & de Meuron's 1994–99 Eberswalde Technical University Library and the use of wildly patterned fabric by Dries van Noten.

Deconstruction's return

In addition to illustrating how the creative and technical processes of fashion and architecture superficially correspond, Brooke Hodge, MoCA's curator of architecture and design, has dredged up the corpse of Deconstruction theory (Decon) as rock-solid proof that the relationship between the two disciplines is more than skin deep. In the gorgeous, albeit problematic, catalog for the show, Hodge writes that beginning in 1980, fashion and architecture sought "liberation from convention" and "openness to ideas and techniques from other disciplines, [inspiring] radically different approaches to design." An accompanying gallery installation presents the frayed, fragmented dresses of Japanese designers Rei Kawakubo and Yohji Yamamoto next to such architectural models as the Parc de la Villette by Bernard Tschumi. Haven't we've been down this catwalk before?

The catalog includes two essays by Hodge, one of which establishes the framework for the show's installation and another that specifically focuses on Decon in architecture. Patricia Mears, a curator at New York's Fashion Institute of Technology, contributed an essay on the relationship of fashion to Decon, noting the lack of a thorough examination of the topic by theorists, critics, and curators. *Skin+Bones* may add to the conversation, but it leaves much unresolved.



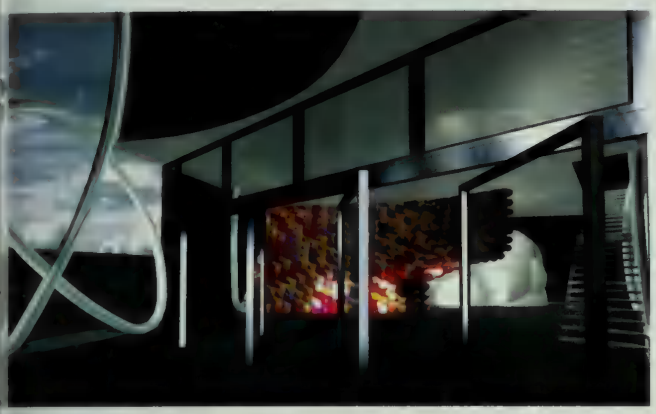


The facade of Office dA's 2002–03 House in New England incorporates layering and cutting, both of which are evident in the rubber wall slits that reveal windows beneath (above). Viktor & Rolf's 2003–04 One Woman Show collection takes layering to extremes (left).

Architecture's top model

By so intently focusing on practice and dead theory, *Skin+Bones* deflects from the economic and social contexts that license just this sort of cross-disciplinary investigation. What arguably makes the trajectory of architecture since 1980 worth considering is not Decon, but globalization—the Web, media, design publications, software advances, home-improvement TV programs, travel, and trade—which has deposited architecture further into fashion's territory. While a model of Herzog & de Meuron's 2000–03 Tokyo Prada flagship store, positioned near Yoshiki Hishinuma's 2004 Inside-Out 2Way Dress, may ostensibly share the dress's asymmetrical crisscross structural pattern, it also trades in this global culture of design chic. Miucca Prada built a fashion powerhouse through instrumental deployments of name-brand architecture throughout the world, including the Koolhaas-designed New York and Beverly Hills stores. These two architectural baubles—studies in ambitiously high-tech, experimental design—were among Koolhaas's first built works in the United States. The hip reputation of the 2001 New York design (with the accompanying book and press orgy) certainly couldn't have hurt his future American commissions, including the Seattle Public Library, which *Skin+Bones* spotlights. Anyone who has seen Koolhaas cut a swath through a party in a Prada suit knows that brand association is not an overlooked subject in architecture offices and schools. Prada's shrewd use of architecture has gained it a place in the design world, securing a piece of a taste culture that would also include MoCA.

Skin+Bones's complete lack of attention to such circumstances which produce what we might generally call *fashionability*, renders the show's many visually arresting analogies superficial. A model of Peter Eisenman's craggy, structurally ambitious, though unbuilt, 1992–93 Max Reinhardt Haus, for example, appears next to Kawakubo's cantilevering skirts from the 2004 Excellent Abstract collection. Detached from a larger framework, Eisenman's building (already late in his infamous Decon exercises) essentially becomes sculpture, a secret source of inspiration for a dress collection some 10 years later. Inversely, the terms of fashion's endless cycle of rein-



eg Lynn's Slavin House, to be completed in 2008, which incorporates a wall interlocking plastic pegs, recalls a Paco Rabanne dress from the 1960s.

ntion—beg, borrow, and steal—creasingly find refuge in chitecture. And if we're trading erely in surface effects, it's worth nsidering that the Eisenman ilding's webbed steel structure efigures the similarly clad Seattle brary and Tokyo Prada.

And then there are the exhibi-n's truly unfortunate associations, ich as Tess Giberson's Structure 1 llection from 2003–04, which lminated in a fashion show with odels undressing and draping the rments onto a simple wooden ructure in an effort to create their vn environment. Giberson's col-ction is installed adjacent to higeru Ban's Paper Emergency helters for the United Nations gh Commissioner for Refugees: mporary do-it-yourself shelters simple plastic fabric on a card-oard-tube structure. This xtaposition lacks insight, not to ention sensitivity, and slights an's architecture through a crude rmal reading and a few wall texts luding to "community."

's all about the look

he show's "Creative Process" sec-on epitomizes the limits of a purely rmal analysis of fashion and chitecture. It pits a series of pho-graphs of designer Narciso odriguez at work, pinning, pointing, nd folding a dress into existence, against Frank Gehry's exploratory models for his 1987–2003 Walt Disney Concert Hall (a project that seems to appear in every architecture show at MoCA). The genius-at-work visual trope suggests that Gehry's three-dimensional design process (which relies on CATIA, a software program developed for the aerospace industry) relates just enough to Rodriguez's dress construction to warrant the conclusion that little creative or theoretical ground separates these two masters.

With all due respect to Rodriguez, architecture has far surpassed fashion's use of materials and technology. The kind of deep information embedded in an architectural model—real or digital—no longer has a basis in the Modernist obsession with surface. Ironically, Gehry's development of Digital Project, a proprietary 3D design software, pushed architecture further into this complex modeling realm while allowing Gehry to remain largely unconcerned with its effects on the underpinnings of his work, outside of streamlining the fabrication process for its undulating surfaces and complicated interior geometries.

As it happens, Gehry, along with a number of other architects in *Skin+Bones*, such as Daniel Libeskind, Zaha Hadid, Eisenman, and Koolhaas, played a significant role in the ultra-fashionable 1988 *Deconstructivist Architecture* exhibition at New York's Museum of Modern Art. That show, organized by Mark Wigley and Philip Johnson, forms the basis for *Skin+Bones*'s explicit use of Decon as the theoretical ground for making a surface analogy with fashion, as opposed to a critical rupture from Postmodernism that pursued a return to the supposedly unfinished projects of the Russian Constructivists. Architecture's use of Decon exists within a clear genealogy—one that many of its unwitting practitioners openly acknowledge—that finds little application to fashion's whims. Nevertheless, *Skin+Bones* presents no competing claims to Decon, let alone even a satisfying explanation of the theory and why it, out of other 20th-century architecture theories and movements, represented such a break to necessitate a critical re-evaluation in terms of fashion.

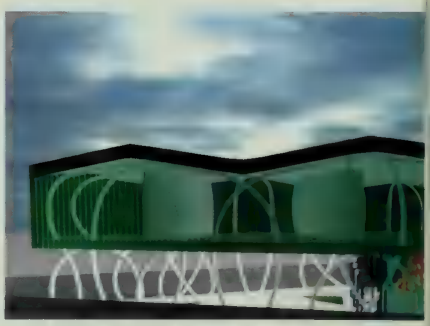
The height of fashion

Hodge's apparently arbitrary decision to consider theory only up to 1988, the year of Wigley's exhibition and book, is regrettable, since even Wigley has moved on from Decon with a 1995 book, *White Walls, Designer Dresses*. Here, he exhaustively lays out Modernism's relationship to fashion and fashionability, recalling Modernism as the anti-style, the death knell for the 19th century's style crises. Regardless of what one thinks of his analysis, this exclusion conveniently skirts opening any debate on style, image, branding, trends, and everything else under fashionability's sway. Wigley is certainly not the only authority, but it would be a start.

Even with its ooh-la-la glamour and tasteful installations, *Skin+Bones* numbingly confines fashion to expensive women's evening wear from Tokyo, Los Angeles, New York, and Europe. This is not radical reconsideration, but tony conformity. We don't get to see fashion's immense possibilities: These are clothes designed for a single imaginary person, who happens to be a starvation victim in 6-inch stilettos. That's a fundamentally different tactic from the one exemplified by the architecture on display in MoCA's galleries. As with Prada's flagship stores, "epicenters" where the company can host cultural events targeted at a larger audience than its clothing customers, the rules of architecture permit open-ended design play in ways high fashion prefers to ignore.

Tasteful or cool

Of course, architecture's table has room for the fashionable, since certain sectors of the profession have always served up trendy design gestures and gimmicky technological solutions (not necessarily bad things). Cool architects find their way into *Skin+Bones*, and even if no single building truly receives the depth of curatorial treatment one might hope for in an architecture show, their work will certainly be seen again. Greg Lynn's undulating wall of interlocking plastic pegs for his ongoing Slavin House only hints at what this architect could accomplish had he been given an entire gallery at MoCA. And, undoubtedly, the theoretical remnants of Deconstruction have absolutely nothing to do with it. ■



With relatively little built work, Lynn has used his product design to inform his Slavin House—a fact too little explored in *Skin+Bones*'s intense formal focus.



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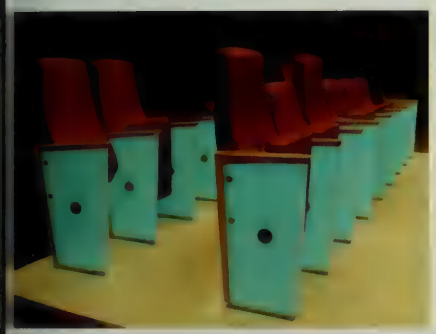
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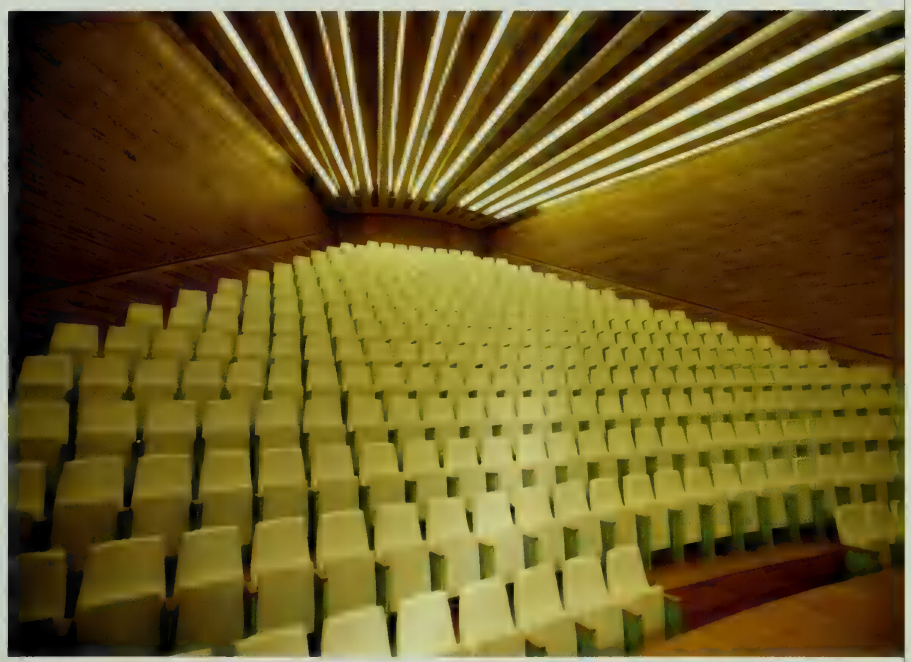
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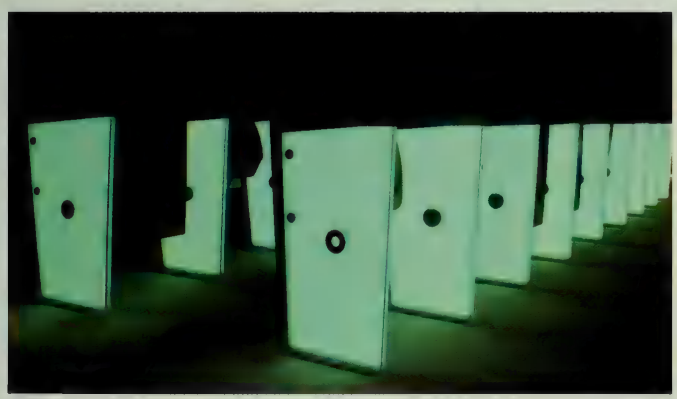
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Product View







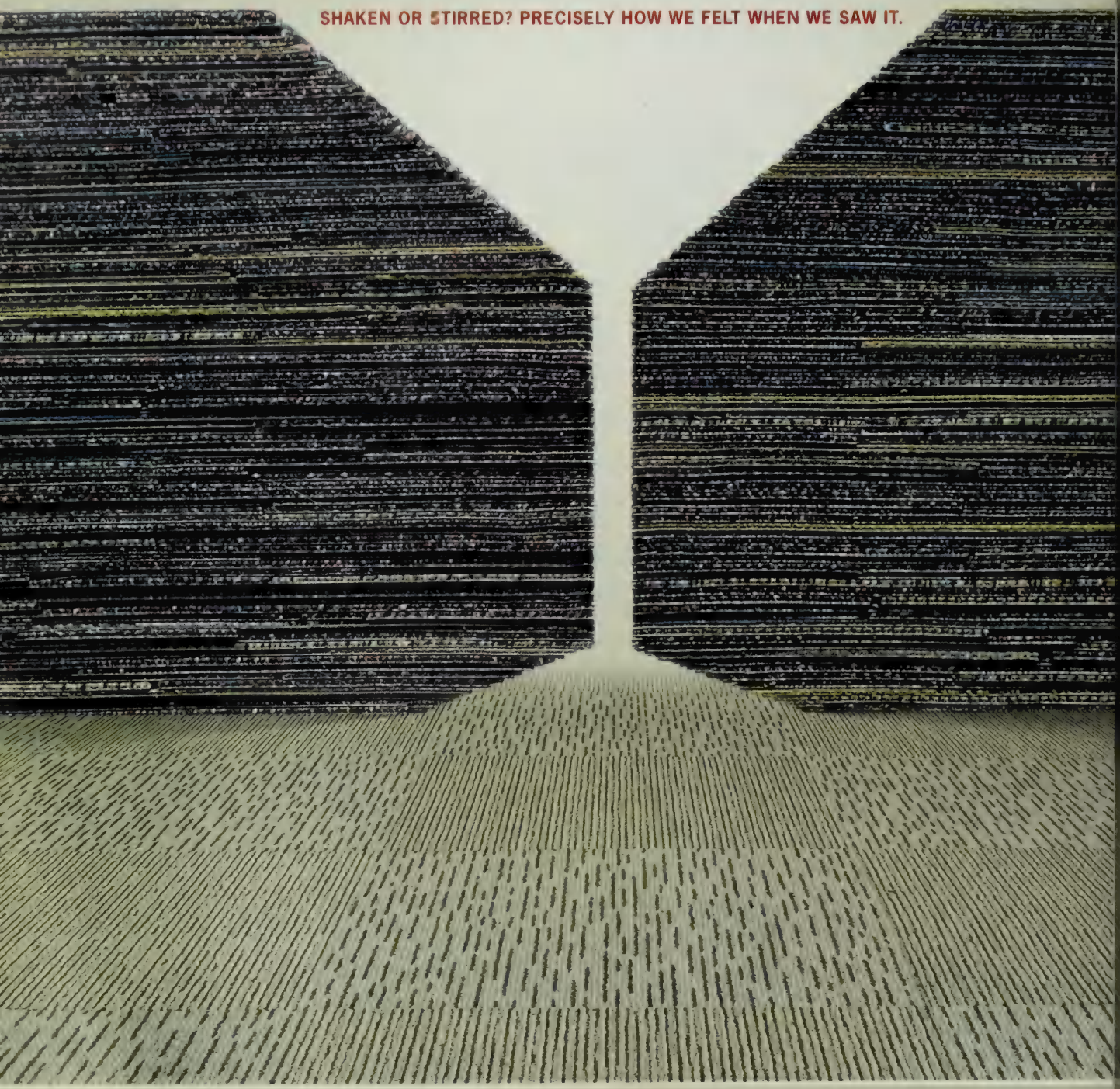
Clockwise from left: Prototypes of the chair design. The Aula Magistral is one of four main theaters in the complex. Each chair is connected to the theater's lighting system and can be used as emergency lighting.

Glowing theater seating sets the stage for drama

y Rita Catinella Orrell

oltrona Frau, known for leather-upholstered furnishings and car interiors, col-
borated with Santiago Calatrava to develop an illuminated seating system
esigned exclusively for the four large theaters and small rehearsal space of
is Palau de les Arts Reina Sofia, the opera house in Valencia which officially
unched its first season in October 2006. Working from sketches by the Valencia-born Calatrava, Poltrona Frau produced
nd installed 4,219 seats in four colors, with different inclinations, heights, and widths, according to a long visibility study
arried out by the company. Made of wood, leather, and glazed crystal, each chair is illuminated by a thin, electrolumi-
escent light source and controlled by a specially designed software program. Depending on the desired atmosphere
r the production, the chairs can be illuminated from 50 to 150 volts, giving the audience a feeling of floating in the
ark—a scenic effect strongly desired by the architect. Poltrona Frau, New York City. www.poltronafrau.com **CIRCLE 200**

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Snapshot



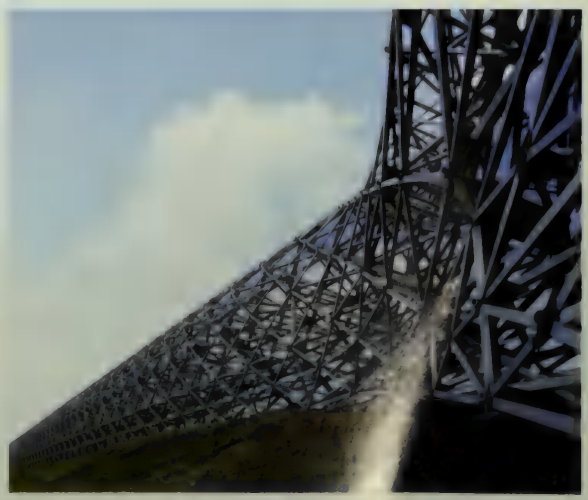
Utrecht's mile-long high-speed baffle

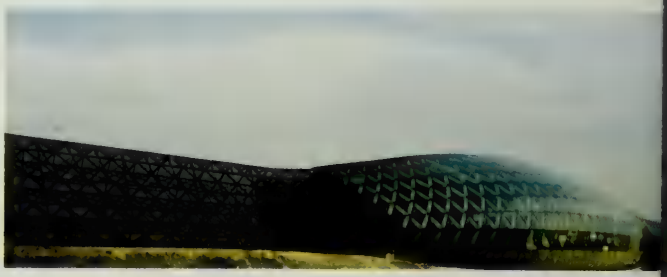
y Beth Broome

ipping along the A2, one of the busiest highways in the Netherlands, motorists pproaching or leaving Utrecht are treated to a break in the roadside tedium with a himmering, mile-long sound barrier. As if tipping its hat to the automobile—to which owes its existence—the wall widens at its midway point, ballooning into a "cockpit" hat houses a luxury car showroom. If the sound barrier is, as the Dutch architecture rm Oosterhuis_Lenard (ONL) describes it, a snake creeping along the highway, its anslucent gray skin punctuated by scales of glass, then the cockpit is the egg that he snake had for breakfast.

The project started off as a basic request by the city of Utrecht to ONL for a simple, arthen acoustic wall to block sound for a new residential development behind the orth–south highway that connects Amsterdam to Maastricht. The scope quickly grew hen Hessing, a luxury car dealership, put in a request with the city for a new, higher sibility location for its showroom. Shortly after regulations for the wall were modified, tipulating an extra element topping off the bermlike barrier, the city connected essing with the architects, gaining them yet another client.

Seen from the perspective of a driver traveling at about 75 miles per hour, the ound barrier was designed with speed in mind. In the initial design phase, ONL used







At its middle, the sound barrier, which lies between two highway exits, blooms into a luxury car showroom (top). Merchandise sits like caged animals, waiting to break free of the cockpit's steel-lattice-and-glass structure (above and right).



a 3D surface model that replicated the experience of driving on the A2, helping the architects determine the shape the barrier would take. The architects drew on car styling techniques, giving the steel-and-glass barrier an aerodynamic form with lines, along which the surfaces fold, that fade out at the cockpit and then fade in again.

The barrier and cockpit's steel-lattice structure is clad in single-glazed triangular glass plates set in an overlapping pattern to buffer noise. The cockpit's glazing also advertises the showroom's wares: Lamborghinis and Maseratis that face the highway, giving the appearance of waiting patiently to be released onto the open road. All of the structure's visible joints will be fitted with LEDs with interactive capabilities, enabling traffic to activate sensors programmed to alter color and brightness.

The barrier has a variable section along its entire length. "All the pieces are different," says ONL's Gijs Joosen. "The building is made with mass-customized panels by connecting our 3D models directly to the steel producer," he says, referring to the team's "file to factory" design/production approach.

The cockpit and sound barrier offer benefits to those on both sides of the fence. While residents will get their P&Q, motorists whizzing by can glimpse into the cockpit—which Hessing says has helped to significantly increase sales—and window-shop at high speed, daydreaming that they, too, will someday upgrade their ride. ■



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Succeeding a

Suc

Succession plans should be more than schedules for transferring ownership—they should be integral to a firm's strategic plan to recruit and develop talented staff

By Andrew Pressman, FAIA

Woody Allen's famous quip, "I don't want to achieve immortality through my work. I want to achieve it through not dying," perfectly expresses the kind of wishful thinking that often gets in the way of preparing for the future. Architecture firm principals in particular have a reputation for finding excuses to put off firm succession planning until they are nearly into their 60s. In some cases, this is already too late—planning for a smooth transition of both the leadership and ownership of a firm ought to begin 10 years or more before th retirement of a principal in order that all the benefits of such change can be realized. The most obvious reason for a succesio plan is to compensate principals fairly for the firm they've bui with their entrepreneurial spirit, including the physical assets an intellectual property they own, and for the money they've investe in their businesses. But ownership-transfer planning should be pa of the firm's overall strategic plan. Both require that the firr develop and cultivate talented employees in areas beyond desig and project management, such as marketing, human resource financial management, and technology. Another meaningful conse

drew Pressman, FAIA, is a practicing architect who resides in hington, D.C. He is the author of Professional Practice 101 *(1997).*

FEATURES



quence of a smooth leadership transition is that it allows the successors continued access to the marketplace. When a principal leaves a firm abruptly because of an ill-conceived succession plan, the reputation of the business may suffer tremendously.

And finally, contingency plans developed as part of a succession plan can act as a hedge against the unexpected. There is always the possibility that a principal could depart on short notice for any number of reasons, or that an event resulting in a principal's disability or death could occur. Planning for the possibility of such a drastic turn of events is necessary to ensure the continued healthy operation of the firm—if not its survival—and to reassure clients that its obligations to them will be met. In the event of such a catastrophe, it will be necessary for the firm to follow through with its projects in a manner that is consistent with its principals' values.

Some architects feel preparing a succession plan is an ethical obligation to their employees. Frank Harmon, FAIA, a sole proprietor in North Carolina, believes that succession planning should be part of the responsibility a principal should exhibit both to younger employees and to clients. As he says, "We should nurture young architects—the wonderful interns or associates in the office—by giving them ever-increasing responsibility and then, eventually, part of the practice." Ann Chaintreuil, FAIA, of Chaintreuil, Jensen, Stark Architects, based in Rochester, New York, underscores this notion. "The most important part of our succession planning is that we've contributed to the development of our future partners, not just to the value of the business upon retirement. They've done so much during the past 10 years. We would not be in the remarkable position we are in now if it weren't for their efforts, for which they should be rewarded."

A tool for recruiting and cultivating talent

If the slogan "people are our greatest resource" is deemed to be true, then a firm must be able to hire great people, and develop their skills as both architects and future managers. A well-defined and documented succession plan can be an excellent tool for recruiting high-potential individuals in what is, at the moment, an extremely competitive recruiting market.

As these high-potential recruits prove themselves, a

Three Case Studies: Snippets of succession planning are revealed in the profiles of practices ranging from small to large on the following pages. All of the interviews affirmed the conventional wisdom that the issues are the same regardless of size, but become increasingly complex the larger the firm. Those issues include determining an appropriate value, selecting a mechanism to transfer that value, and deciding on elements of firm culture such as governance, compensation, and retirement policies. Generally, transition in a small firm involves one or two principals passing the baton to an equal number of successors. Larger firms typically promote a broader distribution of ownership.

career trajectory that culminates in ownership and leadership for them facilitates their loyalty, and can provide the motivation they need to contribute to all aspects of the firm's success. But the firm must have a professional development program that will provide a diverse range of high-quality practice experiences. This kind of development takes years, not months.

Gordy Mills, FAIA, C.E.O. of Durrant, a 300-person A/E firm headquartered in Des Moines, explains that his firm, typical of many large firms, has career growth track plans with well-defined sets of requirements that employees must meet in order to become associates and principals. Durrant has a formal mentoring program, as well, pairing firm principals with candidates for promotion. It is clear that there are advancement opportunities if candidates meet certain specified performance standards.

Firms that use succession planning as part of their strategic planning can also use the opportunity to either hire or develop talent that can help reposition the practice for expansion by creating new studios or opening new offices.

The process of succession planning

For a group of principals that's just starting, the main task is to become fully informed in general about all elements of succession planning and how they specifically apply to their firm. The best way to do this is by talking to colleagues who have done it, and reading about the process for professional service firms. It will probably be necessary to hire a consultant. The most prudent use of the consultant's time is the front-end strategizing—setting forth goals, requirements, making a timeline, and specifying tasks—and moving forward. A consultant can prevent mistakes, such as inadvertently chasing away viable successors by overpricing the firm, or advise principals against selling out but failing to retire.

Peter Piven, FAIA, the Philadelphia-based principal consultant of The Coxe Group, and author (with William Mandel) of *Architect's Essentials of Ownership Transition* (John Wiley and Sons, 2002), lists seven steps that are crucial to making a succession process successful: start early, recruit constantly, share information, assign and delegate judiciously, provide feedback and establish accountability, communicate interests and intentions on a regular basis, and mentor continually. These steps, discussed below, should serve as a good starting point.

Tower Pinkster Titus Associates

Tom Mathison, FAIA, of Tower Pinkster Titus Associates, explains that soon after establishing the firm several decades ago, the founding principals agreed to an organized plan to sell their stock and retire—intentionally staggering the dates so they all wouldn't leave at once. They began to increase the number of shareholders to give more people a voice in the company's direction. There are now 21 stockholders in the 60-person, Michigan A/E firm. One reason to broaden ownership was to attract and retain talent; it also offered an incentive for individuals to aspire to leadership positions and be proactive in project management, marketing, and representing the firm. To become an associate, firm members must first be nominated by shareholders from either of the firm's two offices or by the board of directors. Associates are expected to be talented architects or engineers who possess leadership traits and have the ability to attract new clients and talented staff.

It is anticipated that principals will rise through the associate ranks, although it may be necessary to hire outside the company to acquire needed expertise. Such an external hire may enter at the associate or senior associate level.

It has become clear that senior members of the firm should retire only under financially manageable circumstances, if at all possible. There is an attempt to balance retiring principals who are selling stock with stock purchases by associates. The firm encourages associates to buy more stock if they haven't reached their limit, or it identifies new associates who are future leaders of the firm. To a certain extent, departures can be anticipated based on employees' age and an understanding of their career goals.



Left to right: Arnold Mikon, FAIA, president/C.E.O., and principals Steven Hoekzema, AIA, Thomas Mathison, FAIA, and Richard Bromfield, AIA.

Stock is valued by book value (net worth), based on an assessment by the firm's accountant at the end of each calendar year. Goodwill is not part of this firm's valuing formula. The current board is hard at work on the transition to the next generation of leaders. A new in-house training program is scheduled to be launched next year to prepare associates to lead the firm and to bolster skills in project management. Mathison believes that principals can't begin too early to groom successors to understand relationships, contacts, and projects, so when the transition does occur, it is very smooth.



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Frank Harmon Architect

A sole proprietor of a small firm in Raleigh, North Carolina, Frank Harmon, FAIA, is rightly concerned that someone should complete his projects if tragedy strikes. One option for the small practice to deal with this concern—if a young staff is not yet ready—is to develop a mutual arrangement for coverage with another firm. Harmon's intention for the long-term, however, is to develop interns in the office so they can eventually take over the work as he becomes less involved in the day-to-day operations.

Prospective partners must share Harmon's perspective on design. The participatory process with clients is paramount. He would expect successors to value good design (defined by the firm's body of work) and be excellent team players. Currently, all employees have project management responsibilities under Harmon's direct supervision. That's how he ensures that ongoing professional development is inherent in the firm's process of executing the work. Harmon believes that he is doing his best work now and that it is part of his professional mission to pass that on to the younger people in the office.



Members of Frank Harmon's office are, from left to right: Judy Harmon, Erin Sterling, Matt Luck, Frank Harmon, FAIA, Sarah Dickerson, Isaac Panzarella, Colleen Simon.

Start early: Firm principals should put an ownership transition in motion at least 10 years before they plan to retire. The conventional wisdom is that it takes about that much time to implement a reasonable transfer, although there might be some exceptional cases where it could be accomplished sooner. It is more than a financial transaction. It is a transfer of the responsibility, contacts in the marketplace, and so on—the whole firm culture. Client relationships will also benefit from early planning, with likely successors working with their counterparts on the client's side of the table. It takes time to develop close working relationships.

Recruit constantly: This will illuminate differences in the talent pool and help to clarify to management which skills and personal characteristics may be desirable in the future. It is prudent to use job searches to identify interested potential successors rather than simply addressing the firm's immediate need for a new employee.

Share information: Effective communication will foster staff education about all aspects of the firm—particularly its culture. Allowing candidates to examine financial reports such as income statements and balance sheets will yield an understanding of the firm's operations, which is significant for future partners.

Assign and delegate judiciously: What work is assigned, to whom, and when are important decisions. Principals must get into the habit of delegating components of a leadership position to facilitate the transition and provide exposure. If there is some overlap, for example, a principal can observe and evaluate performance. It is easier to pinpoint any weaknesses or deficiencies in this context, which can then be addressed. If principals fail to provide opportunities for successors to engage in meaningful client relations and practice management tasks, they risk losing successors, who might even take clients with them. These exercises may also expose staff who are not good candidates for the succession process.

Provide feedback and establish accountability: Debrief early and often to discuss how you—or another principal if you are not in a position to be a direct role model—would have handled a given situation. Annual performance evaluations are a good mechanism to provide feedback related to any anticipated partner-level accomplishments.

Communicate intentions on a regular basis: Ann Chaintreuil asserts that expectations for future partners must be explicit. In her firm's case, generating new work and assuming a leadership role were important and consistent with the stated desire for the firm to continue to grow.

Mentor continually: Provide

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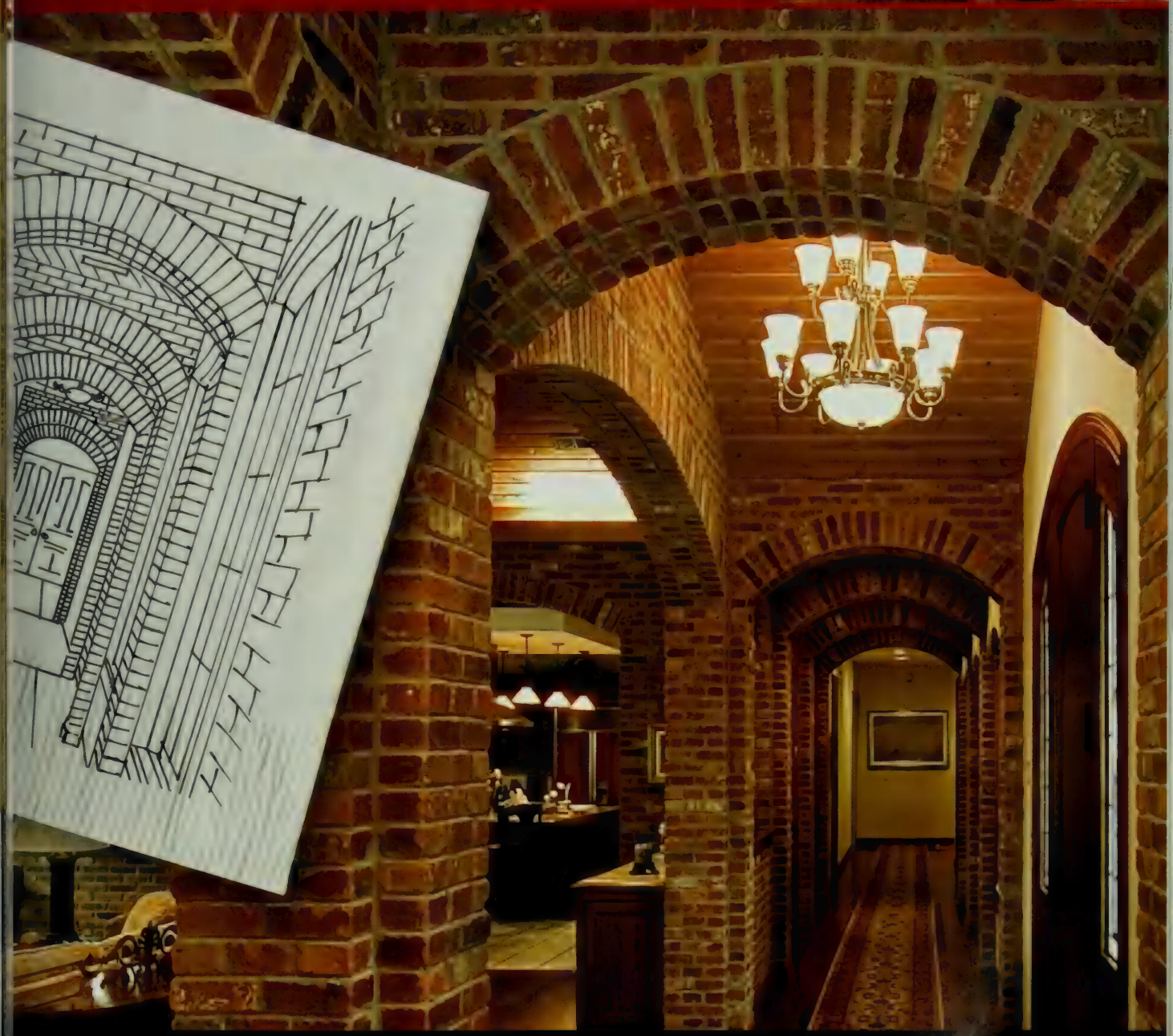
	Before transfers		Transfers at Year 1		Transfers in Year 2		Transfers in Year 3		After transfers		
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[illegible] A—selling	1,000	$30,000	(200)	(6,000)	(200)	(6,200)	(200)	(6,600)	400	13,200	40%
[illegible] B—acquiring	-	$0.00	100	3,000	100	3,100	100	3,300	300	9,900	30%
[illegible]	-	$0.00	100	3,000	100	3,100	100	3,300	300	9,900	30%
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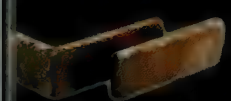
Table [illegible] ample stock transfer schedule. (From *Insider's Guide to Cashing In On Your Equity* [secon[illegible]ition], by Lowell Getz, published by ZweigWhite Associates, Natick, Mass., 1997.)

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frequent mentoring beyond job-related issues to include all aspects of professional growth. This might even involve a team of principal mentors in a firm—matching strengths of a mentor to needs of a candidate at the most appropriate time within his or her development.

Financial components of a transition plan

The human-resources-related strategizing that one must do to put a transition plan together comes pretty naturally to most principals and their successors. The financial mechanics of the ownership transfer present the greatest potential for trouble. Firms really benefit from a specialist who is experienced in firm ownership transfers.

Lowell Getz, an accountant from Houston and a financial consultant specializing in ownership transition planning, has succinctly explained the three elements, as follows:

The financial transfer. The basic idea behind selling a firm is that ownership of the property is transferred from one generation of principals to the associates who will succeed them. The biggest issue is that younger associates don't have a lot of money to buy into the firm, yet the owners deserve a fair price.

The schedule. This shows how much is divested by those who are selling and how much is acquired by those who are buying each year (see Table 1, page 60). If future successors are identified early, they are motivated to stay with the firm, contribute to its success in a substantive way, and have an opportunity to distribute their financial obligations over a longer period of time.

The communications program. This introduces the succession planning and ownership transition to all the stakeholders, and explains the benefits and risks of owning stock or a partnership interest—specifically, how the firm's plan will transpire.

The value of the firm

Arriving at a rational price for the firm that is understandable and fair to both buyers and sellers is an art. There are a range of possible values. One is simply the conservative net worth, or "book value," which is defined as assets minus liabilities. Another way of assessing worth is by a firm's "premium value," which includes net worth plus intangibles such as goodwill, reputation, the ease with which the firm is successful at acquiring new work, the staff's experience and skills, and other factors, including backlog, history of returning clients, markets served, and financial history.

Getz suggests that a firm's value is not a single number, but a range, depending on circumstances (see Table 2, page 64). Getz cites two examples. If a firm is in trouble, perhaps facing the loss of a key rainmaker, the firm may only be worth liquidation value. At the other end of the spectrum, a firm might be acquired at a premium value if it is of interest to a potential external buyer.

One way to recognize some of the firm's ongoing business value is by applying a formula, typically incorporated into the

Durrant Group

Gordon Mills, FAIA, C.E.O. of Durrant, a 300-person A/E practice headquartered in Des Moines, describes the significance of thoughtful succession planning for his firm so that internal talent can grow and eventually slide into leadership positions. He notes that in today's tough talent market, having career growth plans and mentoring to help people develop professionally is critically important to retaining top talent.

Qualifications for future leaders are well-defined. Candidates must demonstrate loyalty, initiative, talent, a strong work ethic, good communication skills, technical ability, and honesty, and must have earned the respect of colleagues.

The firm has targeted metrics for various principal-level positions; for example, project management has one set, marketing another, and so on. Those who are in this principal track are generally on a three-year plan, with measurements in each year, with the expectation that all targets will be met at the end of the three years. There is, however, a degree of flexibility. For example, substantial progress toward interim goals may be sufficient to qualify a candidate to become a principal earlier.

The managing principal in each of the firm's 11 offices develops a career plan tailored to the associate or partner nominee, with goals matched to their position.

The succession plan is revised annually and modified to reflect company reorganization and fill any gaps. The company is growing at about 15 percent per year, which requires a combination of hiring new talent and internal promotions.



Left to right: Charlie Marsden, C.O.O., Lori Thielen, C.F.O., Dave Alley, chief marketing officer, and Gordy Mills, FAIA, C.E.O.



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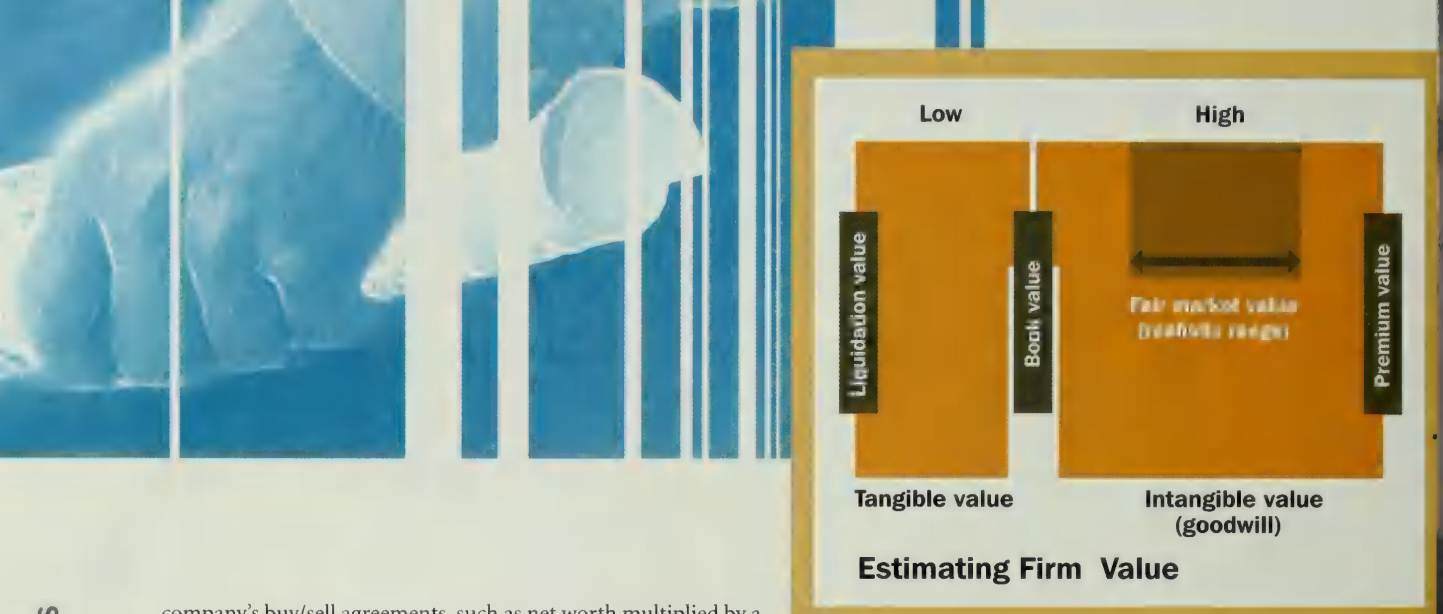


Table 2. A firm's value can depend on intangible assets like goodwill. (From *Insider's Guide to Cashing In On Your Equity* [second edition], by Lowell Getz, published by ZweigWhite Associates, Natick, Mass., 1997.)

company's buy/sell agreements, such as net worth multiplied by a factor. According to several management consultants, today the fair market value of architecture firms that are being transferred internally is typically one to two times net worth. Boston lawyer Carl Sapers, Hon. AIA, provides an example of another valuation strategy: The "Boston formula" values a firm on the basis of net worth plus 15 percent of one year's receipts. An independent, external appraisal may be a valuable assist in any negotiation, but there is an associated expense. Michael Strogoff, AIA, of Strogoff Consulting, states that "as with all business transactions, the 'fair market value' is eventually determined by discussions between a willing buyer and a willing seller and is subject to the actual terms of the ownership transfer."

Financial strategies and ESOPs

Mechanisms should be considered to promote the purchase by young associates who typically do not have a lot of cash. Usually firms use bonuses, apply salary increases, and sometimes bank loans to accomplish the transfer, so in effect, the firm funds the buyout through its profitability. Payroll deductions from the buyers' salaries over a period of years can ease the burden as well. But to make the process "real," prospective owners should always contribute some cash to the buyout so that their own investment is at stake.

An employee stock ownership plan (ESOP) is one way to sell the firm to employees. The ESOP is a type of profit-sharing plan that allows firm employees to have an ownership stake in the firm. Simply stated, a founder sells stock to the ESOP and invests the proceeds. The ESOP uses a bank loan, guaranteed by the firm, to fund the purchase, and the stock goes into the accounts of plan participants as the loan is repaid. An ESOP's big advantage is that it allows the selling shareholder to defer taxes on the proceeds received from the sale. ESOPs are most appropriate when there is a lot of stock to transfer and not a lot of time to do it. However, they are generally too expensive for small firms to set up. Total fees can range from $25,000 to $30,000 or more for an attorney to write the plan's documents, an administrator to manage each of the accounts of the participants, a valuator to value the stock every year, and an accountant to prepare reviewed financial statements. Therefore, the tax deferred savings from ESOPs need to outweigh the expense in creating them. There are deferred compensation plans, as well, that should be evaluated, in which the owner receives payment after retirement to minimize tax liability for both the firm and the seller.

More strategic advantages

At its best, succession planning is a valuable part of professional practice and integral to firm culture. Viewed strategically, it can support finding, developing, and advancing the best people, help the firm realize a competitive advantage, and reward the retiring principals in multiple ways. There is a distinction between retiring from ownership and retiring from practice. It may be desirable—for both the firm and the individual—for a former owner to maintain an emeritus role subsequent to official retirement. If there is a substantive contribution to be made, and the retiree is not likely to inhibit an effective transition by preventing new owners from fully engaging, then a different role should be pursued. But, since any involvement is so much a function of specific personalities and motivations, it is difficult say this would always be the case.

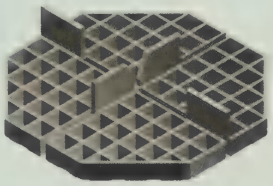
Sharing a succession plan with prospective clients on medium-to-large-scale projects can enhance a proposal for services. At the very least, it would demonstrate depth of talent in the firm, and show that there is competent staff available to lead and successfully complete a project in the event of a tragedy. While many firms have such a plan in place, it is rarely communicated to clients, who would undoubtedly appreciate the thoughtfulness of a firm committed to protecting their interests.

According to Sapers, as late as the 1960s, very few firms considered ownership transition because most architects believed that their creative abilities were strictly personal and nontransferable. Sapers, with characteristic wit, equates those architects with the ancient pharaohs who were buried with all of the trappings of their worldly power. Today, most principals realize the importance of guiding their firms into the next generation. There is recognition that the firm has value, and with some focused effort, that value can be transferred to others. ■

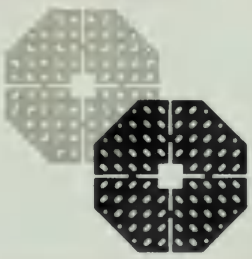
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White enamel panels with a mica finish clad the exterior of the museum addition (this page and opposite). The curtain wall frames the new entry.

Inspired by the rugged landscape, Joan **Soranno** leads a team to expand the University of Alaska's **MUSEUM OF THE NORTH** in Fairbanks



y Weld Royal

Fairbanks sits on a vast plateau near the center of Alaska, about 125 miles south of the Arctic Circle. The century-old city is surrounded by mostly roadless wilderness where fox dodge wolves and bears, and caribou roam by the hundreds. In this nd of extremes, temperatures can drop 50 degrees in a single day.

The town lacks a strong architectural history, but that could ange with the major new expansion of the Museum of the North at the niversity of Alaska, Fairbanks. Designed by Hammel, Green and rahamson of Minneapolis, collaborating with architect of record GDM Anchorage, the structure's sensual, curved forms sit distinctly in contrast th the rugged natural landscape and local building traditions.

Merchants, gold miners, trappers, and dreamers founded irbanks, now Alaska's second-largest city (the metro area's population is ,000). Their shelter was utilitarian, meant to last as long as the gold did. vo local landmarks are the Captain Bartlett Inn and the Fairbanks sitors Center, both log cabins, a common local building vernacular.

Founded in 1917, the university campus is perched on a ridge erlooking the Chena River that winds through the town by strip malls, arehouses, and boxy buildings. In the distance, the Tanana River Valley's boreal forest stretches for 100 miles to the foot of the mighty Alaska ange. The university museum was founded in 1926 as a showcase for an chaeological collection, and today it is Alaska's foremost repository for regional natural history collections, complementing Classical and Modern art. The institution earned its own building in 1980, a 39,000-square-foot, flat-roofed Modern structure designed by HOK of St. Louis.

In the early 1990s, the university chancellor approached museum director Aldona Jonaitis about renovating the museum and building a new wing. The $42 million project was programmed to include a 44,000-square-foot addition, encompassing a separate gallery for art, an auditorium, a larger shop, open-to-view painting storage, and a second-floor social space. Part of the museum's purview, new research labs would allow ornithologists studying avian flu to dissect birds, while geneticists could study the makeup of 10,000-year-old plants. "I thought a gorgeous building would help show there could be a high-quality museum in a remote place," Jonaitis says.

Hammel, Green and Abrahamson teamed with GDM to compete against Peter Eisenman and Polshek Partnership, the other firms vying for the commission. HGA principal Joan Soranno, AIA, traveled to Fairbanks before completing her firm's proposal. Captivated by the Fairbanks site, Soranno drew inspiration from the nearby mountains. "I

Project: *Museum of the North, University of Alaska, Fairbanks*
Architects: *GDM (architect of record)—James Blair, principal in charge; Scott Robbins, project architect; Hammel, Green and Abrahamson (design architect)—Joan Soranno, AIA, design principal; Gar Reetz, AIA, principal in charg ohn Cook, AIA, Linda Morriss IA, project architects*
Engineers: *P onsulting Engineers (C nd structural); Coffman E ers (electrical, mechan*

eld Royal is a print and broadcast journalist based in Juno, Alaska. She moved ith her family to Alaska last year from New Jersey.







Architect Joan Soranno says she was inspired by the movement of glacial ice in Alaska to clad the building with shimmering white surfaces that change in differing light conditions (this page and opposite). Arriving visitors might feel as if they are entering a glacial crevasse. The building's glazing frames views of the mountain ranges in the distance, and allows daylight into new public spaces.

1. *Storage*
2. *Lobby*
3. *Gallery*



SECTION A-A



ed to capture the feeling with soaring shapes and forms that were still stract and open to interpretation," she says. The university liked her proach and hired HGA's team in 1998 to design the expansion.

Meanwhile, Jonaitis traversed Alaska to raise money. Since fund-g would come from a mix of sources—Congress, the state, and private nors—she met with many civic groups and community boards to derscore the value of architecture in a state where many citizens remain nplussed by contemporary design. Jonaitis says she envisioned a build-g that could put Fairbanks on the cultural map.

The 2,250-acre campus seems to have grown at odds to sensitive aster planning. Classrooms are scattered in buildings as much as a arter-mile apart, presenting a student-attendance challenge when the eather drops below zero. Despite its lack of architectural distinction, the e is graced by a beautiful backdrop of spruce, birch, and aspen trees.

The scattershot feeling of the place was lessened with the useum's completion this year. A new focal point, its dynamic assem-age of forms can be seen from the airport and the railway station. Clad white enamel panels with a mica finish, the exterior takes on local col-s as the light changes: the yellows and oranges of sunrise, the alpen glow the afternoon, and greenish hues during winter nights when the rora Borealis dances in the sky.

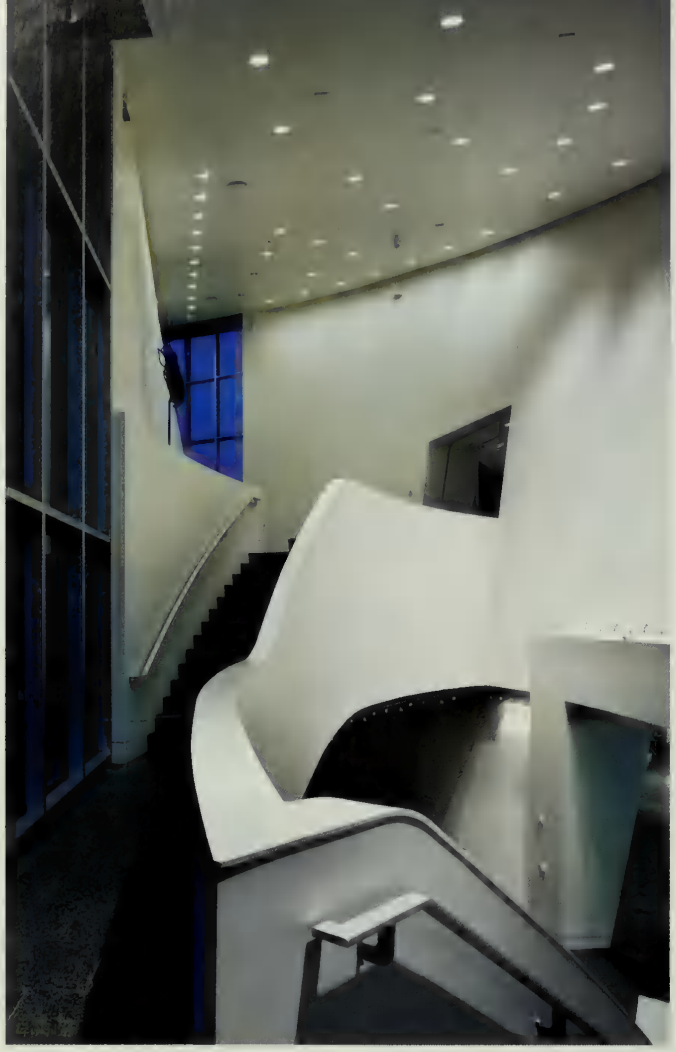
Driving or walking along an access road that winds up a ridge, sitors first see the south side of the museum and a gently curved, one-vel mass that appears to collide into a much larger, horizontal form. The ad swings around the building, and on the north side arrives at a differ-ent view: a sloping horizontal form cantilevered 40 feet over the building's facade. Soranno shaped the building's envelope "in a 360-degree way, so there would be no official back side," she says. A 45-foot-tall curtain wall joins the two curved forms to mark the main entrance.

The museum's circulation is a simple parti—a long spine that links the new eastern entry to the old one, on the museum's west side. The 1970s enclosure is compositionally low and horizontal. Soranno used the original structure as a starting point for the core, now wrapped with curv-ing forms conveying an upward sweep. Housed in the new addition, the main exhibition space, called the Gallery of Alaska, includes most of the natural history collection. Several large pieces, such as an Ice Age steppe

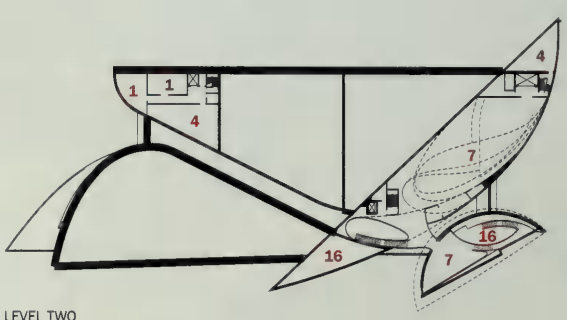
THE NEW FRONT DOOR OF THE MUSEUM WAS RELOCATED SO VISITORS WOULD APPROACH THE BUILDING FROM BELOW.

bison mummy and the skull of a bowhead whale, are standouts on dis-play. The existing building's structure has all but visually disappeared, except for a seismic seam (Fairbanks is in a high seismic zone) connecting the old and new buildings near the midpoint of the interior spine.

The lobby's high ceiling and expansive, south-facing glazing give the space a cathedral-like ambience. Windows offer a view of the Alaska Range capped by Mount McKinley. A "floating" showcase runs along the glass and links the lobby with another gallery on the second floor. This 4,900-square-foot gallery features a curving east wall rising 40 feet. The



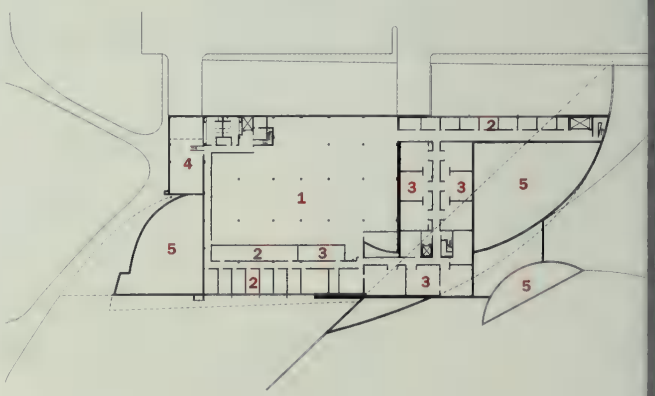
1. *Storage*
2. *Office*
3. *Lab*
4. *Mechanical*
5. *Unexcavated/future*
6. *Lobby*
7. *Gallery*
8. *Auditorium*
9. *Retail shop*
10. *Café*
11. *Education*
12. *Research*
13. *Film center*
14. *Loading*
15. *Exhibits preparati*
16. *Open to below*



LEVEL TWO



LEVEL ONE



LOWER LEVEL

space exhibits both art and artifacts intermixed in an egalitarian fashion.

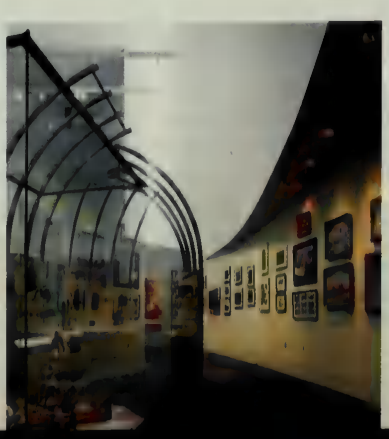
A wide bridge connects the art gallery to a lounge and demonstrates the architects' skill in crafting a memorable space where one can contemplate art or Fairbanks's fast-changing light conditions. A curving staircase with low risers descends to the ground floor, past a large trapezoid-shaped window that also frames views of the Alaska Range.

Some museum finish details seem clumsy. Squared handrails on the floating staircase, for example, counter the prevailing, pristine curves. But as Fairbanks architect Charles Bettisworth, AIA, notes, the museum's break from the traditional local vernacular is already influencing Alaskan designers. "The museum does wonders to demonstrate what architecture here can achieve—an inspiring structure of beauty that people can enjoy much more than the simpler boxes we tend to inhabit." ■

Sources

Metal cladding: *Alcoa Architectural Products*
Curtain wall: *Kawneer*
Roofing: *Polarkey Roofing Products*
Snow retardant system: *Alpine Snow Guards*
Glazing: *Viracon; Glass Industries*
Custom glass canopies: *Super-Sky Products*
Metal doors: *Steelcraft*
Wood doors: *Lynden Door*
Hardware: *Schlage; McKinney; LCN; Von Duprin*
Acoustical ceiling: *Armstrong*

For more information on this project, go to Projects at **archrecord.construction.com**.



Curved stairways carry through the lines of the exterior shell (top left). The structure is cast-in-place concrete with a steel-braced frame. Exhibits focus on Alaska's natural history in addition to surveys of archaeology and art (left).



The public spaces of the museum feature glazing to frame views within dramatic, soaring spaces. A mix of daylight and electric light blend to enliven the building's white, curvaceous envelope.



The Lindner Ath
Center, with its
signature triang
windows, curves
funnel crowds i
the basketball a
right next door.

With a curvy building that flexes its muscle quite elegantly, Bernard **Tschumi** creates the **LINDNER ATHLETICS CENTER** for the University of Cincinnati

/ **Sarah Amelar**

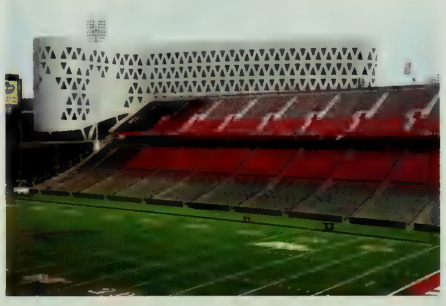
With an elongated kidney bean of a plan, the Richard E. Lindner Athletics Center slips sleekly into a tight and jaggedly irregular site at the University of Cincinnati. Though the client had given architect Bernard Tschumi, A, his pick of campus locations—and had not even considered offering ch a stunningly cramped spot—the architect went right for this challeng- g scrap of land, squeezed by a football stadium, a basketball arena, and orphosis's Campus Recreation Center [RECORD, October 2006, page 100].

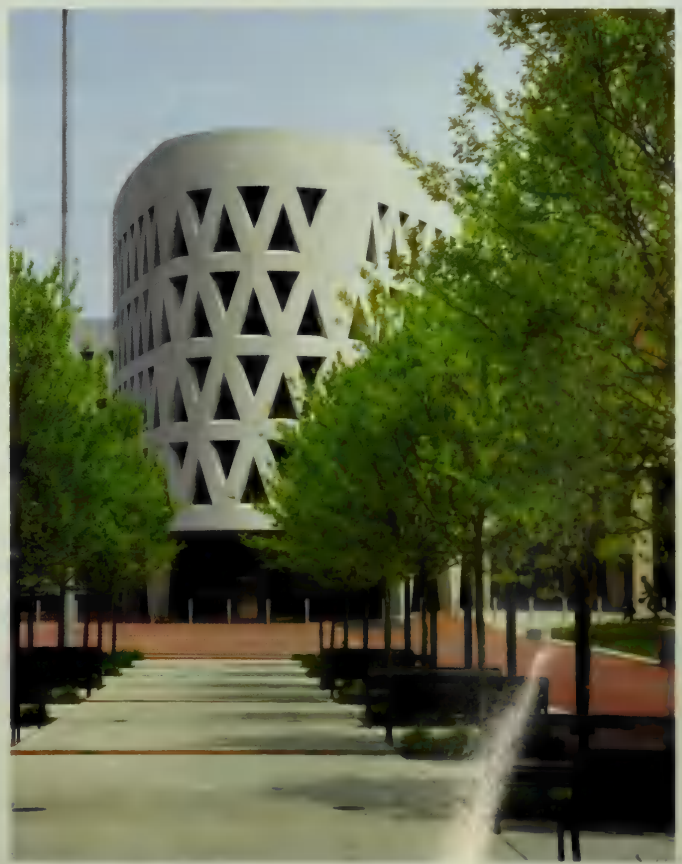
"The idea of finding a simple solution to an extremely complex oblem has always interested me," Tschumi explains. "And I saw this as a ilding about constraints, always in relation to what's immediately ound it." But the university told him he could not build on that site. The nstraints were more severe than he had realized: There, an existing ilding's underground mechanicals, requiring very long, column-free ans, would have to remain, along with access to its loading docks. But e more complicated the mix, the more this swatch of land enticed him. oposing preliminary schemes with the necessary access points and ans, Tschumi ultimately convinced his client.

Certainly, the narrow parcel cuts across an especially congested ne, but in truth, very few sites at the University of Cincinnati would have en simple. With a mélange of skewed axes and a football stadium in an ldly central location, the campus had evolved haphazardly as a com- uter realm, rife with parking lots. Then, in 1989, the university launched ı ambitious, 15-year building campaign, aspiring to transform the cam- ıs into an architecturally significant and cohesive domain. With a master an by George Hargreaves, the school gradually commissioned projects by cast of marquee architects, including Frank Gehry and Peter Eisenman.

The last commission went to Tschumi for the 236,000-square- ot Lindner Center. The $53 million structure would need 30,000 square et of offices (to accommodate all the coaches in a single building for the st time), along with a sports-event ticketing center, a 335-seat audito- um, a permanent-exhibition gallery, a gift shop, a computer lab, tutoring ıd study rooms, a team practice gymnasium, university health services

oject: *Richard E. Lindner Athletics nter, University of Cincinnati, Ohio*
chitect: *Bernard Tschumi*
chitects—Bernard Tschumi, AIA, incipal and lead designer; Kim Starr, project manager
Architect of record: *glaserworks*
Exhibition design: *Perkins + Will / Eva Maddox Branded Environments*
Engineers: *THP; Arup*





Revealing itself differently depending on the vantage point, the building appears small from the campus's tree-lined paths (below) but shows a more expansive side where it embraces the stadium (left).





Precast-concrete covers encase a steel diagrid (above and left). To accommodate the plan's curves, some of the paired, flat, uniformly sized window panes form facets (above). On the interior (right), these triangular windows appear highly graphic, with black frames standing out against the white walls. The glass trophy case spans several floors (right).



d sports medicine facilities, classrooms, and a two-story faculty club.

The pairing of Swiss-born, Paris-bred Tschumi with American collegiate athletics may, at first, seem incongruous. Though briefly an exchange ident in the Midwest, he jokes that "the only thing I had in common with ncinnati's team was its colors—black and red," a reference to his trade-ark attire: all black, except for a red scarf. "But we architects can take on y sort of commission," he adds, "and in many ways, this is an office build-g." Soon, however, he was engaged in the spirit of the sport. The location ne—abutting the end zone and joining athletic with academic realms—served far more than an ordinary office structure. From the Lindner, letes would emerge almost ceremonially at the start of every game. "I real-d," says Tschumi, "that the building could be part of the spectacle."

Rising to that occasion while tackling the abundant site adjacen-s, the architect studied multiple plan diagrams. He considered attaching structure almost like a barnacle to either or both of the flanking build-gs, in some variations completely filling the existing gap. He also looked at e idea of creating a discrete, Platonic, freestanding object at the center of e site (perhaps strategically akin to Brunelleschi's Tempietto, with its cir-lar form maintaining autonomy within a tightly confining courtyard).

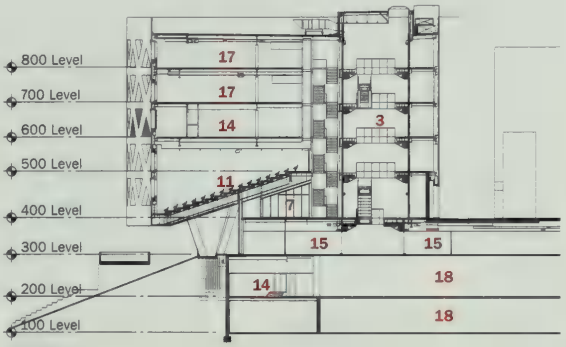
Tschumi finally landed on a hybrid strategy: "Freestanding Infill Contextual Freeform," as he dubs it. Without actually touching the ighbors, the kidney, or boomerang, plan engages each local condition a dialogue—extending out on one side to embrace a long stretch of sta-um bleachers, or nosing out where the athletes emerge, or bending in t another way to funnel people into the basketball arena. Unlike the orphosis Recreation Center, right next door, with its compound sur-es generating a veritable topography, the Lindner is undeniably an ject building (though simultaneously infill and freestanding).

The structure's eccentric footprint, however, wasn't the sole ben-ciary of site constraints. Those conditions also influenced the choice of uctural system, which, in turn, informed much of the overall aesthetic. devise an outer shell strong enough to span up to 80 feet (allowing for e existing mechanicals), the architect turned to a diagrid exoskeleton—sentially a truss wall—that could touch the ground at just a few points. ough Tschumi initially favored exposed steel, he realized that a non-sulated steel skeleton would draw condensation in Cincinnati's climate, d, equally unsatisfactory, a steel-clad, insulated-concrete exoskeleton uld be far more massive and less graceful than the triangulated forms envisioned. So he designed a steel diagrid with fireproofing and insu-tion, all encased in 575 precast-concrete covers.

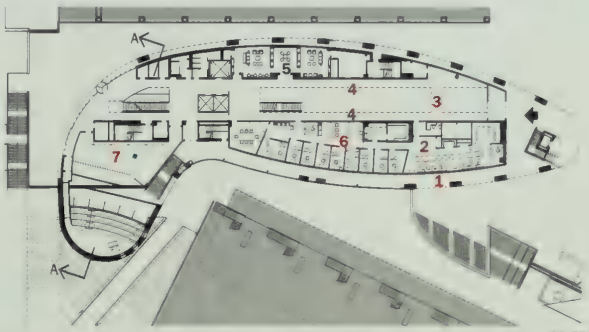
But a diagrid rising from a plan with 12 different curves is a com-ex animal. To accommodate bending diagonals, many of the ecast-concrete covers actually had to warp. The architectural team (which cluded Kim Starr, Tschumi's project manager, and glaserworks, the archi-ct of record) analyzed the various configurations, classifying them into 20 pes, radically reducing the number of different forms needed. To use a uni-rmly dimensioned, noncurving (hence economical) glass panel for the tire shell, the architect gave each opening a pair of triangular panes with an justable mullion in between, allowing some windows to be subtly faceted.

Veering away from convention, the shell forms a continuum ith neither corners nor separate faces. "I have a lot of reservations about cades that are facades," says Tschumi. "I wanted a building that would ow its athleticism, its strength and power—the opposite of decorative."

Yes, structure determined much of the aesthetic, but at the same me, paradoxically, this "nondecorative" exterior has an almost retro and ylized 1950s or '60s feel, reminiscent of Wallace K. Harrison's 1964 Hall of ience, in Queens, New York, with its amoeboid plan and curvy elevations. he freeform plan may never fully escape associations with the era of kid-ey-shaped swimming pools and coffee tables. And the diagrid—which



SECTION A-A



400 LEVEL: MAIN ENTRY FLOOR

N 0 30 FT. 9 M.



500 LEVEL: ONE FLOOR ABOVE MAIN ENTRY



300 LEVEL: ONE FLOOR BELOW MAIN ENTRY

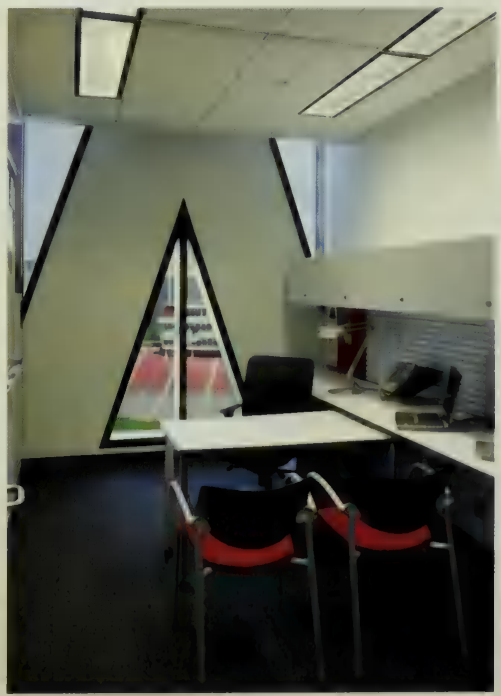
The expansive levels below grade (bottom plan, above) dwarf the boomerang-shaped floorplates above them (two top plans, above). An auditorium spans two floors (section, at top).

1. *Ticket windows*
2. *Box office*
3. *Atrium*
4. *Permanent exhibition*
5. *Lounge*
6. *Club offices*
7. *Gift shop*
8. *Computer lab*
9. *Academic services*
10. *Seminar*
11. *Auditorium*
12. *Tutoring*
13. *Study hall*
14. *Mechanical*
15. *Health services*
16. *Loading docks*
17. *Faculty club*
18. *Existing (to remain)*





For the luminous five-story atrium, Tschumi created a lobby floor of terrazzo in the school's vibrant colors: red and black (opposite, top). This entry-level zone forms a mini museum with permanent exhibitions by Eva Maddox. Evoking filmstrips, the display continues on the undersides of the atrium walkways that flank the long red stair (left). Fritted glass partitions (above and left) enclose study areas and offices, which have triangular windows out, some with ball field views (right).





nds to be read as patterning—was also popular in the '60s and '70s, ough far less structurally evolved then. Adding to the unintended deco- tive effect, the Lindner's luminously pale, creamy-smooth concrete is ıdeniably pretty, giving the shell the qualities of a patterned sheath, or 'en a continuous sheet, albeit a structurally hefty one, of lacy wallpaper.

The perception of the building almost like a confection may come ırtly from its relatively small size, rising only five stories. But this is merely .e tip of the proverbial meringue. Three more stories, with rectilinear floor ates almost twice as large, totalling 124,000 square feet, extend below 'ade to house health services, locker rooms, loading docks, and more.

But the real trophy on display is the 5-story volume, a luminous rium space rising the full height to a linear skylight. Here, the narrow ɔor area, coupled with transparent materials, allows the voluptuous plan ıd the pattern of triangular windows to read through clearly on the inte- or. A straight run of red stairs and a glazed elevator ascend to offices and udy areas, separated from the walkways only by fritted-glass partitions.

The glossy lobby floor of terrazzo (a material often associated ith mid-20th-century lobbies) in vibrant red and black invokes the hool colors and bearcat mascot, but with a fresh, 21st-century bravura. he side of the entry level featuring primarily black flooring is dedicated) a permanent exhibition on the university's academic milestones (such ; scientific discoveries and Nobel prizes), while the permanent display n the red side commemorates its sports history.

Tschumi says he encouraged exhibition designer Eva Maddox to exploit the underbellies of his atrium walkways and cover these surfaces with pictorial narrative strips. The overall effect of this long, narrow interior is dynamic, even cinematic, evoking filmstrips through the repetition of linear sequences and black frames on the glass partitions and transparent elevator shaft. A multistory glass trophy case and a ghostly, see-through, rear-projected film screen hang from the balconies—honoring sports victories, while adding to the clear, glossy materiality. Meanwhile, the highly graphic pattern of black-framed triangular windows against white walls plays boldly in the background, revealing views onto the live football field.

Tschumi may not have grown up waving triangular sports pennants, but he clearly grasped the potential of the triangle in connecting his display case of a building with the events it celebrates. Though a discrete object, remarkably calm and self-contained from the exterior, the Lindner Center opens up adeptly. Its sheathing even dips down toward the stadium, as if bowing slightly, while accentuating the place where players pour out from the locker rooms before a game. The constrictive exterior conditions and the dynamic interior come together with surprising success, or as one prospective student put it when first entering the buildir : "Ah, sweet." ■

Sources
Concrete: *High Concrete Technology*
Curtain wall: *Tubelite*
Ceilings: *Hunter Douglas*
Elevators: *Otis*

For more infor on on this project, Projects at **archrecor struction.com**.

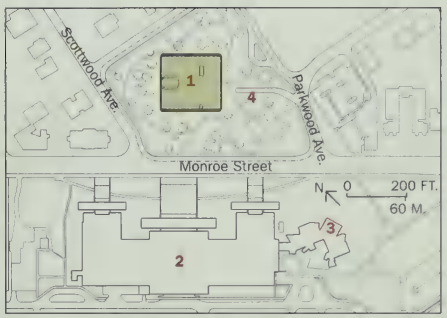


A gap runs between the glass walls of a multi-purpose room (right in photo) and a courtyard (left in photo), providing a thermal buffer and aiding condensation.

SANAA's Sejima and Nishizawa create layers of reflections and perspectives in their **GLASS PAVILION** at the Toledo Museum of Art

Clifford A. Pearson





1. *Glass Pavilion*
2. *Main museum*
3. *Center for Visual Arts*
4. *Loading dock*



The $30 million pavilion sits in a park (above left), facing the main museum and Gehry's Center for Visual Arts (site plan, top). A hot shop is visible from outside (left). Some of the heat from the shop is recycled for radiant floor panels.

Just as theater-in-the-round radically changes the relationship between actors and audience, so the new Glass Pavilion at the Toledo Museum of Art bverts many of the old rules of displaying t. By using mostly clear-glass walls for both e building's envelope and its interior parti-ons, the architects Kazuyo Sejima and Ryue shizawa of the Tokyo firm SANAA have rformed the museum equivalent of stripping away the proscenium stage d creating a more fluid dynamic between art and viewer. Materials and undaries disappear, corners dissolve, front and back no longer apply. The ilding provides spatial drama using a remarkable economy of means, but the same time creates a series of challenges for the museum's curators.

The 76,000-square-foot pavilion houses the museum's impres-e collection of more than 5,000 pieces of glass art and sits in a small rk across Monroe Street from the institution's Neoclassical main build-g. Placing glass art in a glass building seems like an obvious strategy, but rns out to be quite tricky to pull off. For example, how do you protect tworks from ultraviolet rays? How do you display them when most lls are transparent and traditional mounting techniques are impossible? sually straightforward decisions—such as where to locate a thermo-at—become difficult puzzles in an all-glass gallery.

Sejima and Nishizawa love wrestling with such design dilemmas. their 21st Century Museum in Kanazawa, Japan [RECORD, February 2005, ge 88], they figured out how to place square galleries in a circular glass ilding and move visitors through a mazelike interior with few traditional llways. And at the New Museum now under construction in New York ty, they have devised an intriguing way of stacking metal boxes off-axis to ing daylight into the galleries. When the Toledo Museum picked SANAA 2000, it gambled on a young firm known by very few people outside of pan. Today, SANAA is one of the hottest Japanese firms, with projects all er the world, including a recently completed design school in Essen, ermany; a theater in Almere, Holland; a museum in Valencia, Spain; an fice building in Basel, Switzerland; and the Louvre II in Lens, France. The ledo Museum's gutsy call looks nothing short of prescient now.

The Glass Pavilion's site imposed a number of constraints on its chitects. To the south, it faced the main museum's 1912 colonnaded nt and Frank Gehry's 1992 Center for the Visual Arts. To the north and west, it needed to address the residential scale of the Old West End, a leafy, affluent neighborhood of Victorian and Edwardian houses. From the beginning, Sejima and Nishizawa decided they would respond to the very different characters of the pavilion's neighbors by using simple forms and subtle materials and keeping the building's height to just one story above ground. They showed the museum's building committee about half a dozen schemes, including one with a cluster of small structures. But the museum wanted to bring galleries and glass-making hot shops under one

Project: *Toledo Museum of Art Glass Pavilion, Toledo, Ohio*
Architect: *Kazuyo Sejima + Ryue Nishizawa/SANAA—Kazuyo Sejima, Ryue Nishizawa, principals; Takayuki Hasegawa, Forian Idenburg, Toshihiro Oki, project architects; Mizuki Imamura, Junya Ishigami, Hiroshi Kikuchi, Tetsuo Kondo, Keiko Uchiyama, project team*
Architect of record: *Kendall Heaton*
Engineers: *SAPS/Sasaki and Partners (structural concept); Guy Nordenson and Associates (structural); Cosentini (m/e/p); Transsolar (environme*
Project ma[illegible]er: *Paratus Group*
General c[illegible]actor: *Rudolph/Libbe*

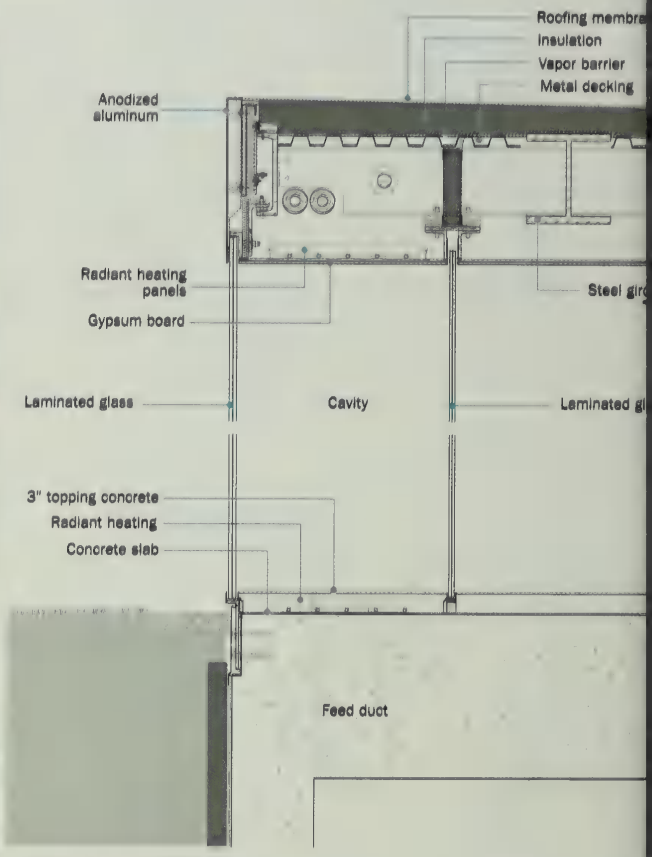




Glass panels, made in Germany, then molded in China, are secured in channels in the floor and ceiling. Visitors can enter the pavilion from a large courtyard (left in photo).







SECTION THROUGH CURTAIN WALL

The pavilion's main foyer (above) winds its way between galleries and other spaces such as hot shops, a café, and a multipurpose room. Slender steel columns and a ¾-inch-thick steel wall wrapping around a lampworking shop (left in photo, top) carry most of the building's vertical loads.



GROUND FLOOR

1. *Enclosed gallery*
2. *Gallery*
3. *Café*
4. *Enclosed courtyard*
5. *Hot shop*
6. *Lampworking*
7. *Courtyard*
8. *Rest area*
9. *Food handling*
10. *Multipurpose*

roof (they had been in separate facilities before), so it selected a scher that turned the pavilion into one large vitrine with curved glass corne

"We wanted a showcase for our glass collection," says D Bacigalupi, the museum's director. "SANAA's design changes the way y view the artworks, since you're not seeing them against flat walls," explains. "They seem to sing in these spaces."

Sejima and Nishizawa know how to coax dramatic tension o of almost nothing. By reducing every element to its bare minimum—t thinnest wall, the most slender column, the clearest glass—the archite create an ethereal beauty that makes you marvel that it doesn't just bl away. The building's exterior skin, made of low-iron glass panels 8 f wide and 13½ feet high, is just 1 inch thick. Interior glass walls are ju ¼ inch thick. Thirty-five rolled-steel columns just 3½-to-4¼ inches thi support the steel roof, along with a ¼-inch-thick curved steel wall wra ping around the building's lampworking room and some cross braci hidden within three Sheetrock walls.

Not only does the Glass Pavilion float within its wooded pa but its galleries float like glass bubbles inside its sheer envelope. Setti interior glass partitions about 2½ feet behind the building's exterior sk the architects created a thermal buffer that reduces energy consumptio and eliminates condensation. To protect artworks from solar radiatio translucent, silvery curtains can be drawn where needed. Wanting to ke the roof as thin as possible (just 1½ feet) and unblemished by protrudi mechanical systems, SANAA placed air ducts in the pavilion's floor a



Translucent curtains can be pulled around the glass walls of courtyards, some visible but not accessible to the public (right in photo, above), to protect artwork from UV rays.

cated most of the physical plant in a nearby building. A basement hides ace for museum offices, studios for activities such as sandblasting and sting, a loading dock, and 15,000 square feet for future galleries.

As part of Sejima and Nishizawa's strategy of dematerialization, a ries of courtyards carve out spaces within the confines of the building, eating a trio of outdoor rooms that reduce glare by bringing daylight side and balancing the light coming in from the perimeter. In a peculiarly panese way, the courtyards act as voids—free of benches, furniture, or en art. Visitors can enter the museum through the largest courtyard, but e other two are inaccessible to the public. Like the gap space that runs tween the pavilion's glass walls, the courtyards assert a strong visual pres- ıce, but remain tantalizingly out of reach. In Japanese architecture, the ncept of *ma*—a gap in either time or space—has long played an impor- nt role. At the Glass Pavilion, Sejima and Nishizawa use *ma* to animate nat could be considered just wasted, leftover space. To American visitors, e gap between all the glass walls—which is large enough for maintenance orkers to walk through—creates an initial wave of frustration. We can see e space but can't get inside it. Then we start imagining what might hap- n in there—not just men in overalls cleaning the glass, but perhaps odern dancers snaking their way around and between the galleries.

Working with the graphic design firm 2x4, SANAA developed an genious system of displaying glass art and providing way-finding cues. lass vitrines set on rectangular bases serve as freestanding showcases for ost of the art, while a few works, such as a Dale Chihuly piece, are suspended from the ceiling. Canted surfaces around the top of each base provide space for information about the art. To help visitors navigate their way through the museum, 2x4 devised a simple vocabulary of gray circles and logos for the rooms, which are embedded in the concrete floor at the two main entrances and the threshold of each gallery. With no opaque walls on which to mount thermostats, the architects set them on curving, freestanding rods inside the rooms. Two hot shops equipped with furnaces that reach 2,200 degrees act as major attractions.

SANAA's first completed building in the U.S., the Glass Pavilion displays the firm's talent for manipulating simple geometry and a restricted palette of materials to maximum effect. Looking at the reflections, refractions, and layers of spaces visible in the building's ethereal surfaces, you understand why people have been fascinated by glass for thousands of years. ■

Sources
Glass curtain wall: *Pilkington*
Anodized aluminum fascia: *UAD*
Acoustical metal ceilings: *Armstrong*
Gallery lighting: *Litelab*
Downlights: *Lucifer*
Exterior lights: *Louis Poulsen*
Paint: *PPG*

For more information on this project, go to Project Portal at archrecord.construction.com.

The new Hamilton Building of the Denver Art Museum sits on a 7.5 acre plot near the State Capitol, and next to the seven-story North Building designed by Gio Ponti in 1971. Facing the new structure is a residential and parking complex that Libeskind and Davis Partnership also executed.



Studio Daniel **Libeskind** and the Davis **Partnership** shake up downtown with a new addition to the **DENVER ART MUSEUM**

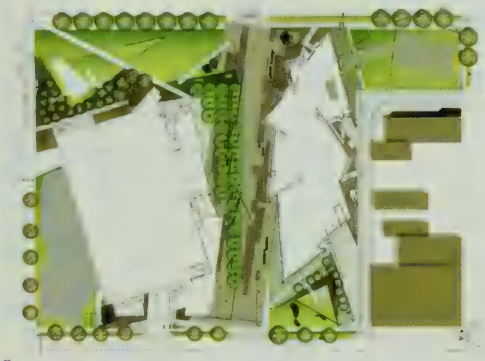
Suzanne Stephens

The shardlike titanium-clad forms of the Denver Art Museum's Frederic C. Hamilton Building burst on the city's downtown with the energy of lightning bolt. The museum addition, signed by Studio Daniel Libeskind in joint nture with Davis Partnership, will not easily n over those who decry the way that "signa- re" architecture tends to overwhelm art on splay. With its fractured shape, slanted anes, and sharp corners galore inside and it, it pointedly and insouciantly declares its sition in the ongoing debate about whether or not architecture should de into the background when displaying art.

Nevertheless, as museumgoers thread their way through a series galleries, they will find arresting platforms for viewing art, even where e angular geometry creates compelling and sometimes vertiginous vistas. it more about that later. Regardless of the controversy about the display art within the canted gallery walls, the jagged building is a surprisingly ccessful tour de force on urbanistic grounds alone. It revitalizes an area of wntown Denver between Civic Center Park, the location of the Colorado ate Capitol, and a dilapidated district to the south dubbed the Golden iangle, now in the process of being gentrified with housing, art galleries, ops, and restaurants [RECORD, November, 2006, page 21].

At the southwestern end of the Beaux-Arts park stands the home the Denver Art Museum, which was designed in 1971 by Gio Ponti, the alian architect who was founding editor of *Domus*. Even in those pre- lbao Guggenheim days, the museum figured it needed an architect of ternational stature to draw the crowds. The local architect for the job, mes Sudler Associates, chose as design consultant the Milan office of nti's firm—Studio Ponti, Fornaroli, Roselli—largely based on his sleekly odern Pirelli Building in Milan of 1956 [RECORD, March, 1972, page 87]. nti, however, did something quite different in Denver: He designed two nnected towers clad in reflective glass tiles, which, with 28 sides, jaunty enellations, and myriad slot windows resembled a medieval fortress. It rned the epithet "eccentric."

Next door looms Michael Graves's addition to the Denver Central brary of 1995, a large-scale assemblage of polychromatic drums and ibic blocks that arguably adds an equally "eccentric" note on the the park.



Site plan with residence and garage, plaza and museum.

A balletic *grand jeté*

When the museum decided its collections of 60,000-plus artworks had outgrown the dark, loftlike floors of the seven-story building, it chose to cross over 13th Avenue to the south. There it could erect a new, 146,000-square-foot building with 30,000 square feet of exhibition space. In order to finance the $110 million project (which includes existing building renovations and other expenditures), the Denver Art Museum obtained a $62.5 million bond from the city's voters. Then it raised $47 million more in private money from a capital campaign, plus $62.5 million in private endowment funds.

Libeskind's own glimmering, center-stage artifact seems poised *en pointe*, lifting off from its base while cantilevering dangerously and dynamically in different directions. A second-story bridge connecting to Ponti's structure, now called the North Building, shoots out like the arm of a ballerina grasping her taller partner in an athletic pas de deux.

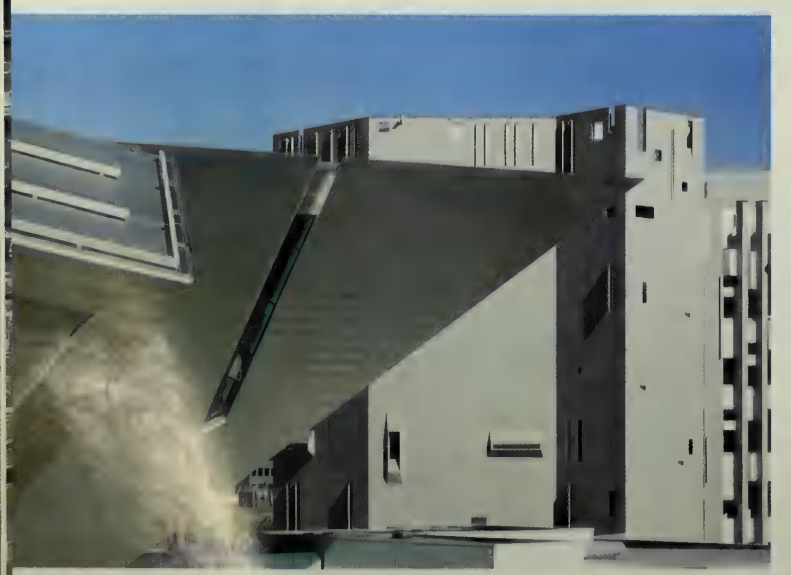
In front of the new addition, Libeskind designed a large plaza, which is also edged by his Museum Residence, another new structure where 55 condominiums wrap around a 1,000-slot parking garage that serves the museum. In the Museum Residence, perpendicular lines (so helpful for placing furniture in apartments) make a comeback. More than a few diagonal, zinc-clad shards seem to have flown out from the whirling dervish of the museum building to encrust the residential building. Yet the shardettes nicely pick up the design theme of the museum while providing the condominium interiors with sharply framed, wide-angle views of its neighbor. The project has proved so successful that Libeskind and Davis Partnership are busy designing a 17-story apartment and hotel tower also on the site.

With this overall context—Beaux-Arts civic center, the State Capitol, Graves's full-blown Tuscan-Postmodern structure, and Ponti's

Project: *Frederic C. Hamilton Building at the Denver Art Museum, Denver, Colorado*
Architect: *Studio Daniel Libeskind with Davis Partnership, a joint venture—Daniel Libeskind, principal; Brit Probst, AIA, principal (Davis); Maria Cole, AIA, project architect (Davis)*
Engineers: *Arup (structural, mechanical); AKK Consulting Engineer (mechanical, electrical); J.F. Sato (...)*







The tilting planes of the titanium-clad addition lean out over the entrance plaza (left). A pedestrian bridge under the 100-foot-long cantilevered prow on the north connects to Ponti's North Building (middle and bottom).

precursor-of-Postmodernism gambit—y would think the Libeskind colossus would cre total havoc in downtown Denver. Ironically, t opposite happens. Ponti and Graves's interlop in a Beaux-Arts civic space become more in gral to the show now that the energy and acti has shifted to backstage. With the advent o third weird presence in the cast of characters beguiling interaction links the ensemble.

The Denver Art Museum cho Libeskind as its architect for the expansion 2000, in a process involving public presentations by three short-list contenders, Arata Isozaki, Thom Mayne, and Libeskind. While Libeski impressed the Denverites with his Jewish Museum in Berlin [RECO January 1999, page 76], the Denver addition had to offer a variety of ex bition spaces that could accommodate large-scale (a.k.a. "blockbuste temporary exhibitions as well as the museum's own varied collections contemporary and Modern art, and its collections of African, Ocean and Western American art. After he was selected, Libeskind asked t Denver architects Davis Partnership to form a joint venture. As Da principal Brit Probst, AIA, explains, both firms worked as a single tea The schematic design was carried out in Berlin, where Libeskind was s located, then design development and construction phases moved Denver. Six people from Studio Libeskind were stationed in Davis's off throughout, although there were continual back-and-forth visitatio with the Libeskind office once it moved to New York in 2002.

A whirl within

The Hamilton Building's entrance on the plaza draws museumgoers in the 120-foot-high atrium, which twists and turns in a dramatically intern ized echo of the exterior's canted planes. The gallery walls, Libeski bravely boasts, also follow the exterior form. Not since the triangulat galleries of I.M. Pei's 1978 East Wing of the National Gallery (and befo that, the spiraling slanted envelope of Frank Lloyd Wright's Guggenhe Museum of 1959) has the display of art been required to submit so pr foundly to the demands of an architectural corset.

To the museum's credit, the director, Lewis Sharp, and his cu tors were open to the challenge, and worked with Libeskind to avoid t looming container-versus-contained conflict. In addition, the museu installation designer Daniel Kohl created freestanding partitions in the fo levels of galleries to reinforce the geometry of the building. The disp system gives differently sized objects and art a sense of scale, and a co palette distinguishes the installations from Libeskind's white interior arc tecture. The balance between objects, color, installation enclosure, and t architectural envelope is successful for the most part, especially in the g leries currently showing Native American art on the second floor. So questionable moments occur: The contained display of African art on t fourth floor can feel claustrophobic; Western American art galleries on t second floor, dominated by bland tan partitions, lack oomph.

Some installations gain in dramatic power from the unusual sig lines. Antony Gormley's spikey statue *Quantum Cloud XXXIII* eerily oc pies the pointed prow of the contemporary art gallery on the fourth flo arrestingly pointed up by a shaft of light coming through the glazed s next to it. A Gene Davis painting, *Phantom Tattoo*, floats on a perpendic lar plane away from the sloping walls, underscoring its optical nature.

Unfortunately, one of the things evidently not confronted was t demand by the ADA that large chunks of a building with sharp, angu edges have little fences around them to prevent disabled museumgo from bumping into them. The presence of a surfeit of these diminut



walls along the
gleam with
ghttime illumination.
titanium cladding
selected for its
lity to withstand
reme temperatures.

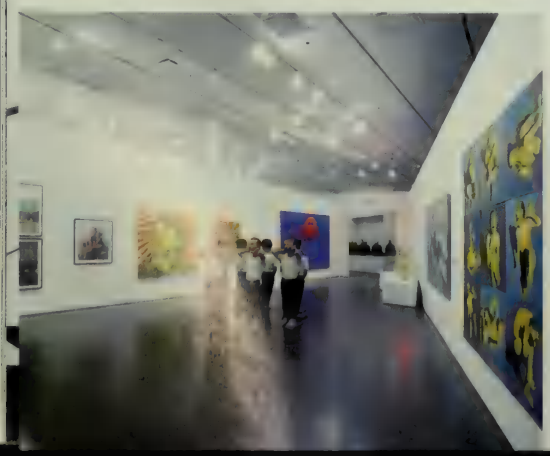


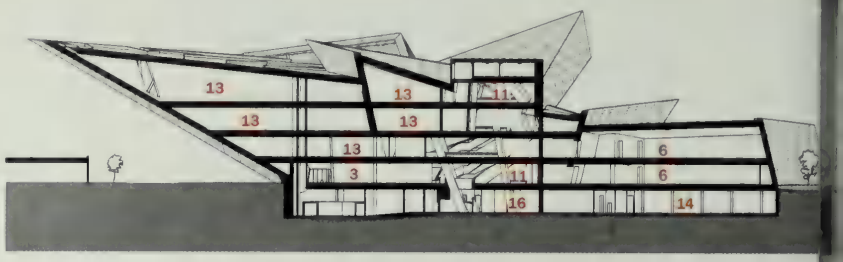
The atrium's dark granite stairs, bounded by slanted and sloped white gypsum board walls, take visitors up and around the four levels of galleries (this spread). From the upper reaches (opposite) of the 120-foot-high space, visitors can see a LED-light and mirrored-disk art installation by Tatsuo Miyajima, called *Engi*.

The sculpture terrace on the third floor (below) contains a piece by Donald Judd that blends into the architecture. On the fourth level (middle), a work by Antony Gormley dramatizes the prowlike corner; while the second level contains the largest temporary exhibition gallery (bottom).











SECOND FLOOR



FIRST FLOOR

1. *Entry*
2. *Café*
3. *Lobby*
4. *Kitchen*
5. *Coats*
6. *Special exhibition*
7. *Office*
8. *Loading dock*
9. *Unpacking*
10. *Reception*
11. *Atrium*
12. *Open to below*
13. *Permanent exhibition*
14. *Art storage*
15. *Bridge to North Building*
16. *Auditorium lobby*

guardrails at first looks like some installation by Richard Artschwage
Only after seeing so many do you recognize this is for real.

Structural challenges

While Libeskind cites the Rocky Mountains in the city's distance as insp
ration for his architecture, only Mother Nature may be forgive
structural failures, such as a rock slide—not a museum. Arup's L
Angeles office, headed by principal Atila Zekioglu, and the lead structur
engineer for Denver, Edwin Shlemon, worked with Libeskind and Dav
Partnership on a gravity-defying structure where there are no vertical el
ments to speak of, except the elevator cores. Since wall planes were
drastically splayed, the floors, composed of steel beams and concrete sla
over metal decking, had to help with the lateral as well as gravity loac
Many steel floor beams serve as tension ties to keep frames of the slo
ing walls, with their latticelike steel bracing, in balance. In places, ext
bracing and steel plates accommodate planar shear forces. In additio
perimeter retaining walls in the reinforced-concrete foundations abso
lateral forces from the exterior walls. The roof's slanted and slopi
planes are composed of steel beams, diagonal bracing, and metal deckin
Steel beams not only support the roof, but double as struts, tying the va



rge glazed openings the roof allow natu- light to permeate atrium (this page). re the landing are- es seating.

as parts of the canted forms together. Titanium panels, which were fab- ated locally, surface both the roof and the walls. One of the reasons beskind had wanted titanium is that it is very stable in extreme weather, th little contraction and expansion. It proved to be a fortunate choice, ice a museum trustee who was head of a Denver-based titanium com- ny donated the material. All of this structural effort, which had to be tegrated into the HVAC system, was made possible with building infor- ation modeling studies used by the team, with the general contractor .A. Mortenson (for details, see *ENR*, May 15, 2006, page 26). All parties y this three-dimensional tool—used from early project phases, not just identify potential conflicts—proved absolutely necessary to address the rious problems of the geometry throughout the design stage.

e life of icons

ow that the building has opened with a splash, and by all counts is an citing and successful addition to the city's downtown, it will take time to e how it settles into its role as Diva of Denver. Will the galleries prove to flexible enough for traveling shows? Will the museum continue to lure sitors to the area once the initial hoopla is over? In anticipation of snowy nters, the team installed little dams on the roof, to keep snow from refreezing as ice and sliding off the steep inclines. Will that be enough? Already problems with leaking through skylights need addressing.

But the larger question would be: Is there a sell-by date for Libeskind's expressively jagged architecture? Architecture has cycles of style like anything else, only slower, and some critics wonder if the iconic creations springing up in the past few years will soon be white elephants. Yet some extreme architecture doesn't suffer the fate of fashion: Frank Lloyd Wright's Guggenheim (1959) or Marcel Breuer's Whitney (1968) in New York City remain vigorous, symbolic statements of their respective eras. Libeskind's museum addition, with its cohesively unabashed ebullience, seems likely to fall into that camp. ■

Sources

Titanium panel: *Timet Titanium*
Curtain wall/skylight/windows: *EFCO*
Glass: *Viracon*
Acoustical ceiling: *Hunter Douglas*
Paints and stains: *Sherwin-Williams*
Seating (auditorium): *Herman Miller*
Downlights: *Edison Price*
Interior ambient lighting: *Litlab*

For more information on this project, go to Project Portfolio at **archrecord.construction.com**.



The School of Art and Art History exhibits asymmetric, planar geometry (this page) as it soars over an old quarry pond next to a limestone bluff (opposite). The cantilevered steel-supported bar jutting to the south is wrapped in a thin skin of glass and oxidized steel siding.

Steven Holl nicely balances expressionism and functionalism in the University of Iowa's SCHOOL OF ART AND ART HISTORY



Blair Kamin

When star architects design campus art buildings, it arouses many of the underlying tensions associated with the execution of art museums. Which matters more: the building or the art, the container or the contained, the architect's sire to create brilliant cultural commentaries or the quotidian needs of ulty and students?

Talk to normally placid art school administrators about such nic structures (of which the classic example is Paul Rudolph's 1963 Arts d Architecture Building at Yale University) and they practically fly into a ge about the functional shortcomings imposed upon them by arrogant m-makers. There is never enough wall space for displaying art or show- slides properly, for example.

"We didn't want that," says Dorothy Johnson, director of the hool of Art and Art History at the University of Iowa. "We were look- for an architect who would understand our needs to create art, ticize art, and accommodate the needs of the students." They got what ey wanted—and more.

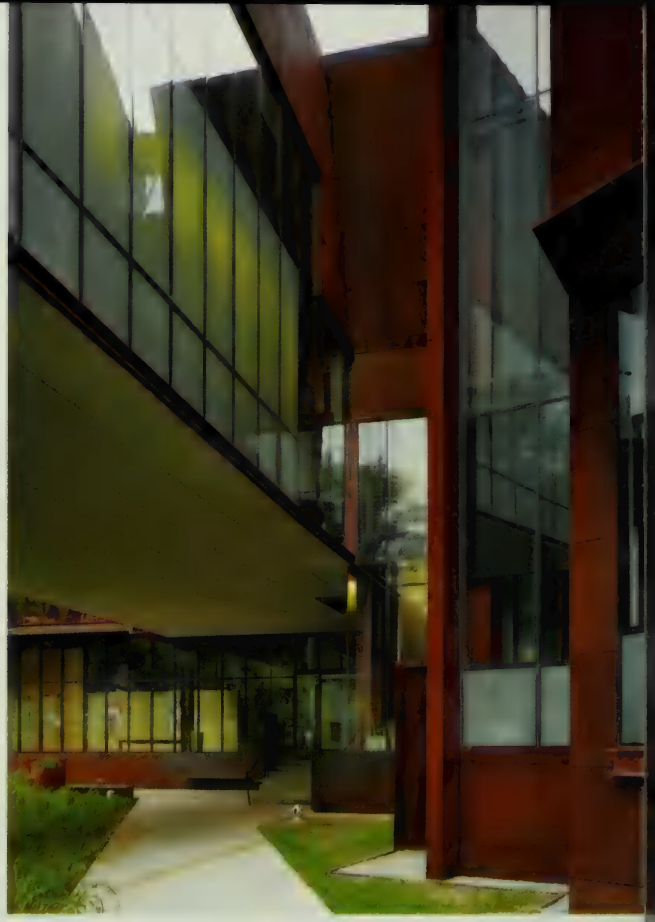
New York architect Steven Holl's $21.5 million, 70,000-square-foot and art history building for the University of Iowa winningly navigates a third way between the extremes of over-the-top expressionism and prosaic functionalism. Holl hasn't just made a knock-your-eyes-out building, a dynamic collage that wears a reddish-brown jacket of oxidizing steel and seems utterly at home soaring over an old quarry pond. He's made a real place, one that painters carting around their canvases actually seem to like.

Holl pulls this off by exploiting the idea of "formless" geometries, which sounds oh-so-pretentious, given that there is no such thing as formless architecture. But the idea, which abandons rigid a priori shapes and lets the arrangement of spaces and circulation routes determine the design, has real merit and actually informs the "Starchitects Descend Upon Small Cities" debate. Because of its flexibility and Holl's creativity, Iowa's art building uplifts both its users and its site. Even though con-

ntributing editor Blair Kamin is Pulitzer Prize–winning architecture critic of the icago Tribune and author of Why Architecture Matters: Lessons from Chicago.

Project: *School of Art and Art History, University of Iowa, Iowa City.*
Architect: *Steven Holl Architects—Steven Holl, AIA, principal; Chris McVoy, design architect; Martin Cox, design architect and associate in charge; Li hu, Gabriela Barman-Kramer, project architects*
Architect of record: *Herbert Lewis Kruse Blunck Architecture—Rod Kruse, principal in charge; Matt Niebuhr, project architect*
Engineers: *Guy Nordenson and Associates and Structural Engineering Associates (structural); Alvine and Associates (mechanical) Shive-Hattery (civil)*





Rather than a single, iconic view, the arts building presents different but interrelated aspects. An angular stair (above left) thrusts to the northwest; the cantilevered bar intersects with the lobby space (above right); and an elevation of monumental columns and recessed channel glass (below) faces north.



struction delays forced the building to open behind schedule, the ro
Holl traveled in Iowa turned out to be far less rocky than in Denver, wh
last fall he quit a justice center still in design, trading charges and count
charges with city officials over the extent of budget overruns.

Dedicated last September and designed with associate architec
Herbert Lewis Kruse Blunck of Des Moines, the steel-framed structu
serves a progressive graduate and undergraduate program that has lo
sought to bring together the making and the analysis of art. It belongs t
too-loosely-knit group of arts buildings along the west side of the Io
River, which bisects the hilly campus. By far the worst of these is M
Abramowitz's 1968 Printmaking Wing, a one-story, exposed-concr
bunker jammed between the river and the original art building, a gracef
brick-clad, neo-Palladian low-rise from 1936. When a selection commit
interviewed five finalists, including Charles Gwathmey and Carlos Jimen
Holl undiplomatically told them, "I hope you don't make the same mistak
you made in the 1960s." He got the job in 1999 and then did somethi
braver still: He persuaded his client to move the art building southwa
from its original site, a so-called "art meadow," to the derelict quarry po

Campus planners initially discouraged the shift because th
didn't think Holl could fit the art building between the pond and a util
line buried beneath a nearby road. But he proved them wrong with a co
pact plan that cleverly pushes the art school's library out over the wat

1. *School of Art and Art History building*
2. *Existing art school*
3. *Art museum*
4. *International Center*
5. *Art meadow*



With a plan that is at once compact and free-form, Holl's art building is wedged between the old quarry pond, or lagoon, to the south, and a buried utility line to the north (left). Using Le Corbusier's 1963 Carpenter Center at Harvard University as a model, Holl's team crafted a plan (bottom) that generates shared spaces rather than being an isolated object. As the section shows (below), the atrium brings daylight into the building's core.



SECTION A-A

1. *Forum*
2. *Gallery*
3. *Administration*
4. *Café*
5. *Student advisers*



GROUND FLOOR



SECOND FLOOR

6. *Lecture*
7. *Office of visual material*
8. *Art library*
9. *Faculty office*
10. *Auditorium*
11. *Media theater*
12. *Design studio*

0 20 FT.
6 M.



With its oversize, folded steel plates providing structural stability, Holl's neo-Constructivist stair soars through the building's skylit atrium (this page).





Channel glass brings a soft, diffuse light into the visual materials library (above). The windows are operable. A monumentally scaled reading room, complete with a porch, punctuates the cantilevered element (left).

king the pond found space. The urban design succeeds on levels both ctical and aesthetic. It moves the new art building closer to the old one; veaves campus pathways through and around the building; and it allows ll—who demonstrated his gift for bringing together art and nature in his apel of St. Ignatius at Seattle University [RECORD, May 1998, page 104]— poetically engage the pond and a weathered bluff alongside it.

Holl proved to be an inspired choice for another reason: He derstands artists, being both an accomplished watercolorist and the signer of the acclaimed Kiasma Museum of Contemporary Art in lsinki [RECORD, August 1998, page 86]. First, he figured out how to rry a relatively tight budget with an aesthetic appropriate for an art ool. "It's a place of messiness and sculpture and paint," he says. "Let's pose the structure. Let's expose the concrete planks."

Then, as Holl gazed at study models, he realized that his plan embled Picasso's 1912 *Guitar*, a radical exercise in sheet metal and wire nstruction that opened the way for sculptures without a solid center. e building's cantilevering library suggested the guitar's neck, its curving rtion the instrument's sound box. A facile connection? Perhaps. But ll's clients were enthusiastic and the comparison crystallized his desire make a building that would be asymmetrical, planar, fuzzy at the edges, d open at the center. As if to seal the connection with *Guitar*, Holl refers the art building as a "hybrid instrument."

It hums from the moment you see it, a powerful but not overwhelming presence. While its low-slung profile relates well to the scale of the adjoining arts buildings and its reddish-brown steel skin subtly talks to the brick of the old art building, Holl is clearly playing his own 21st-century tune. There is no single iconic view. Rather, you encounter a variety of elevations, all well handled. Monumental columns and recessed channel glass endow the north wall with a strong structural expressionism. The west side offers up a dynamic neo-Constructivism, with its boldly sculpted stair. The tour de force is the elegantly mannered Modernism of the south elevation, where wafer-thin planes of steel and glass form a taut skin that alternately conceals and reveals the muscularity of the underlying, bridgelike structure.

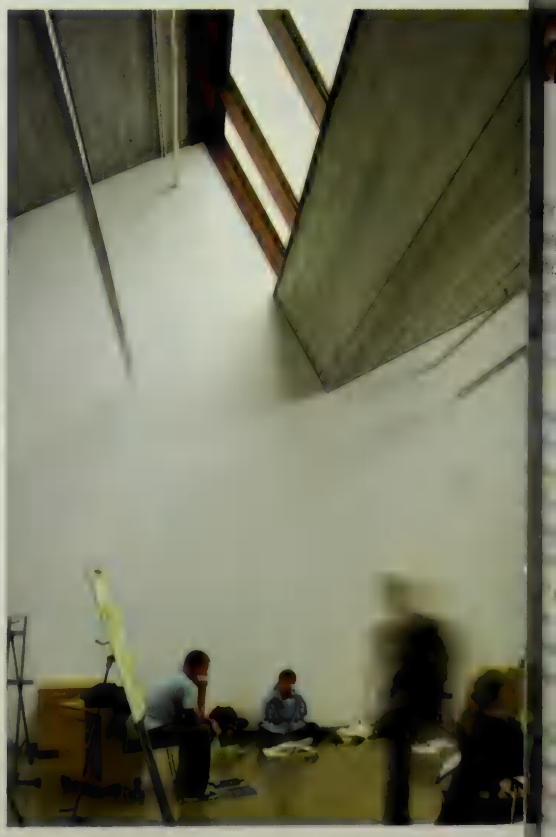
That Holl possesses the compositional deftness to hold these seemingly disparate parts together is just half the story; the other half is that the art building is both an object you look at and a connector you move through. It realizes Holl's predilection for porosity in a way that his Simmons Hall dormitory at MIT [RECORD, May 2003, page 204] did not. The concept is realized with stunning power in the building's skylit atrium, where the building seems cracked open to the outside and a neo-Constructivist stair shoots breathtakingly upward.

The stair, achieved with structural eng er Guy Nordenson, continues the planar language of the exterior. cel folded plates not



Holl's "porosity" is evident in the three-story-high atrium (left) where vertical and horizontal spaces characterize the juncture of the main stair and the library (opposite). The L-shaped library provides a serene, contemplative space (below left), and top-floor design studios receive north light through serrated skylights (below right). The exposed steel structure supports hollow-core concrete planks—economical but artful construction techniques that made it unnecessary to use fire-proofing. Services such as air ducts are integrated into the planks, eliminating suspended ceilings.







t for show but for structural strength. The structure also depends on nging rods and, Holl acknowledges, too many visible bolts, at least for hitects obsessed with structural refinement. "Norman Foster would nge," he says. But, "It's not Norman Foster. It's not any of these British gh-tech guys. That's not the atmosphere of an art school. You've got to ve a certain humor or feeling of casualness, or else it's all uptight."

The thrillingly vertical stair has its horizontal counterpoint in e equally dazzling second-floor library, an L-shaped suite of spaces that rks superbly as a viewing platform. Not only does it provide close-up ws of the pond and bluff, but it also lets the building look back on elf, evoking the contemplative feeling of a college quadrangle. "I see at as kind of a social mixer," Holl says. "If you are in the library and en you look across and see someone walking in the bridge section, u've got this feeling that there's a connection." At the end of the can- ever, the one-story library turns into a monumentally scaled, o-story reading room, complete with turquoise walls. It's a joyous ual exclamation point.

Holl has taken care of the art building's everyday spaces with mparable aplomb. He gave painters, sculptors, and graphic artists mmodious, north-lit studios that draw natural light from the build- g's saw-toothed skylights. Some of the studios have porches that courage students to go outside in good weather. Art history students benefit from auditoriums with no natural light and enjoy good sight lines and technical facilities that seem perfectly satisfactory. Faculty offices and the visual materials library are pleasantly luminous. Most important, recalling the metaphor of Picasso's *Guitar*, is the building's open center—an atrium that includes the neo-Constructivist stair along with an informal meeting space where students and teachers can mingle. Holl extends the communal theme into the hallways, where curving planar benches cantilever off the walls. And there is poetry in these spaces, too, seen in reflections from the pond sparkling on the underside of the concrete planks.

Some students had quibbles, complaining, for example, that they have to cover up windows looking from corridors into the studios to protect the privacy of nude models. Holl laughs upon hearing that. "Maybe they should let those nudes be seen through the corridors," he quips. "It's a kind of naked building." True, and it's comely in the nude. ■

Sources

Steel frame with precast-concrete planks: *Iowa Precast Concrete*

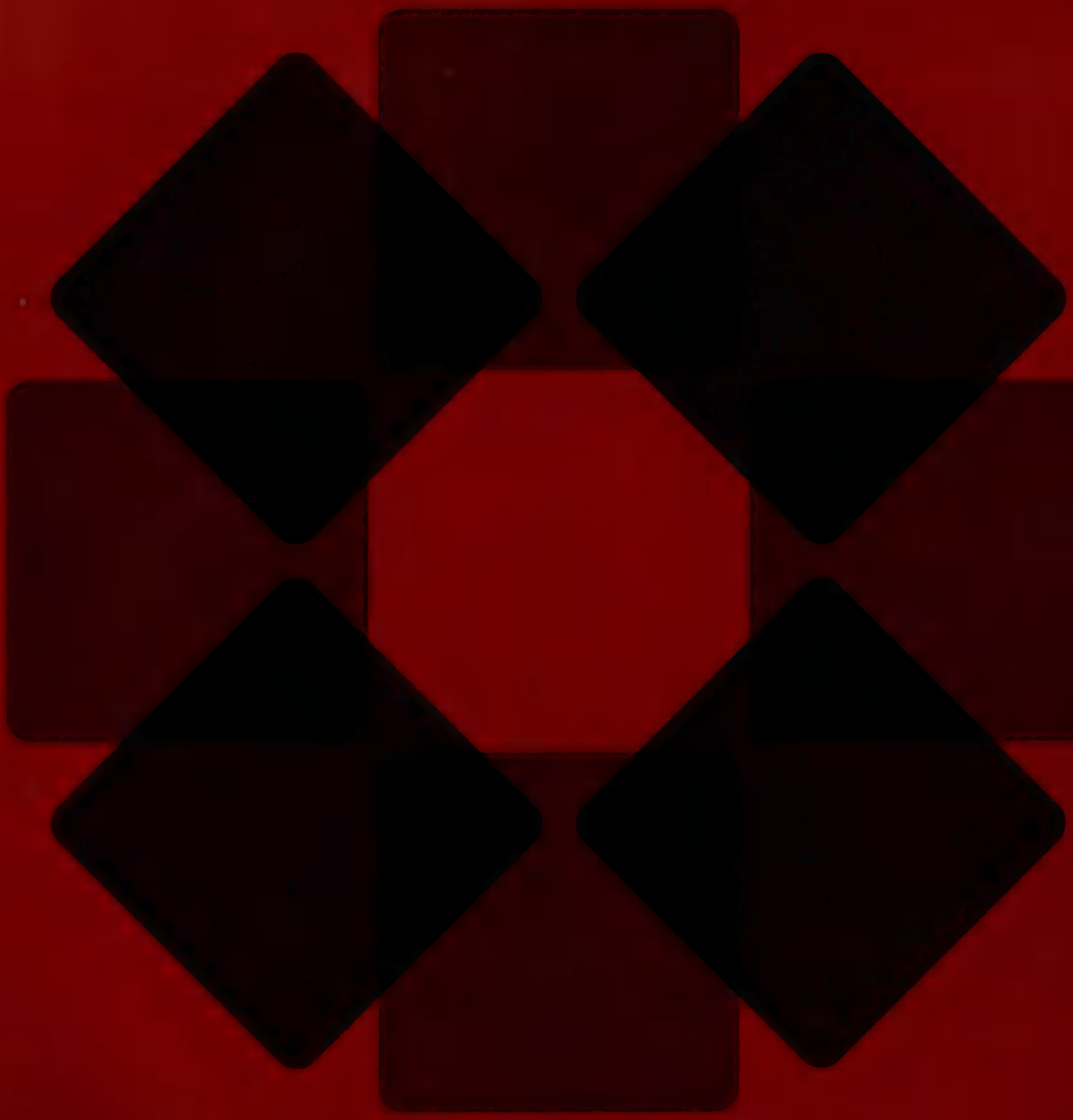
Metal/glass curtain wall: *Architectural Wall Systems; Pohl USA*

Roofing membrane: *Sarnafil*

Office furniture: *Allsteel*

Ambient lighting: *Bartco Lighting*

For more information on this project, go to Projects at **archrecord.construction.com**.



innovation
design
technology
diversity

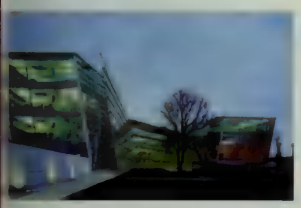
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Social Sustainability

When it comes to designing workplaces for the 21st century, it's easy being green. The real challenge lies in creating environments that nurture collegiality and community.



ÁRAS CHILL DARA

Naas, Ireland

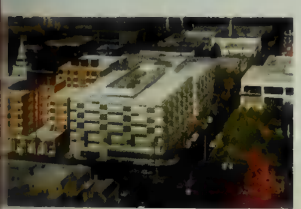
With an off-kilter, bifurcated plan and a novel facade, heneghan.peng. architects and Arthur Gibney & Partners create an iconic new home for County Kildare's civil servants.



CALIFORNIA ENDOWMENT

Los Angeles

Rios Clementi Hale refer to elements of a historic downtown neighborhood, as well as California's diverse landscape, to create a colorful campus focused around a garden courtyard.



223 YALE AT ALLEY24

Seattle

Using alleys, NBBJ divides a large mixed-use project, Alley24, into manageable pieces—then, with smart interior organization, does the same to the long floor plates of its new headquarters, 223 Yale.



CDHS OFFICE BUILDING

Richmond, California

Studios Architecture uses functional items, such as an exit stair and a brise-soleil, to add formal flourishes that overcome this state government building's limited budget.

more information on these projects, go to Building Types Study at
chrecord.construction.com.

By James Murdock

Sustainability is now firmly implanted in the nation's mindset. There is still plenty of room for growth and innovation—according to the U.S. Green Buildings Council, LEED-certified projects represented just 6 percent of commercial real estate built in 2006—but interest in ecosensitive design has moved beyond architects to penetrate the ranks of building owners and occupants, even speculative office developers and government agencies.

At the same time, the logical corollary to green design is only just setting down roots: creating workplaces whose architecture nurtures a sense of community. Call this goal "social sustainability," as Randy Gragg dubs it in his commentary on 223 Yale at Alley24, the Seattle-based architect NBBJ's new headquarters. Its benefits are similar. As tenants know, myriad studies suggest that following the principles of sustainability, such as reducing dependence on artificial lighting and climate control by maximizing daylight and natural ventilation, improves employee productivity. (This, in turn, reduces payroll expenses—not to mention overhead—cementing the financial appeal of ecofriendly design.) But providing spaces that encourage employees to gather, to enjoy a moment of privacy among themselves (or just escape the crowd), or to appreciate a building's unique context, can be equally critical for maintaining a happy, healthy labor force.

As anyone who's worked in a cube farm knows, finding a secluded nook for a private conversation is next to impossible. NBBJ solves this problem with a series of "phone booths," microsize conference rooms with seating for two people that form a spine through the center of each open floor plate. But the architect also provides ample spaces where staff can come together—casually over a cup of coffee, at a long counter aptly called the "Big Table," or for companywide meetings on the "Giant Steps." Stairs also take center stage in Studios Architecture's California Department of Health Services Phase III office building: They provide an attractive alternative to elevators in the central atrium, and at the main entry they add a flourish at once formal and functional.

Áras Chill Dara, a new county government building in Ireland by heneghan.peng, and Rios Clementi Hale's California Endowment headquarters, in Los Angeles, represent a different approach to community. By organizing program elements in unexpected ways, the architects invite the landscape—and thus neighborhood residents—into the heart of each building, establishing a connection between civil servants and the public.

All four projects in this Building Types Study are quietly green. It's their ability to encourage collegiality, or establish urban ties, that makes them exemplars of a certain kind of sustainabilit

One: ÁRAS CHILL DARA
Naas, Ireland

heneghan.peng, with Arthur Gibney & Partners, creates a new Irish Modernist icon, sensitive to the boundary between city and country.

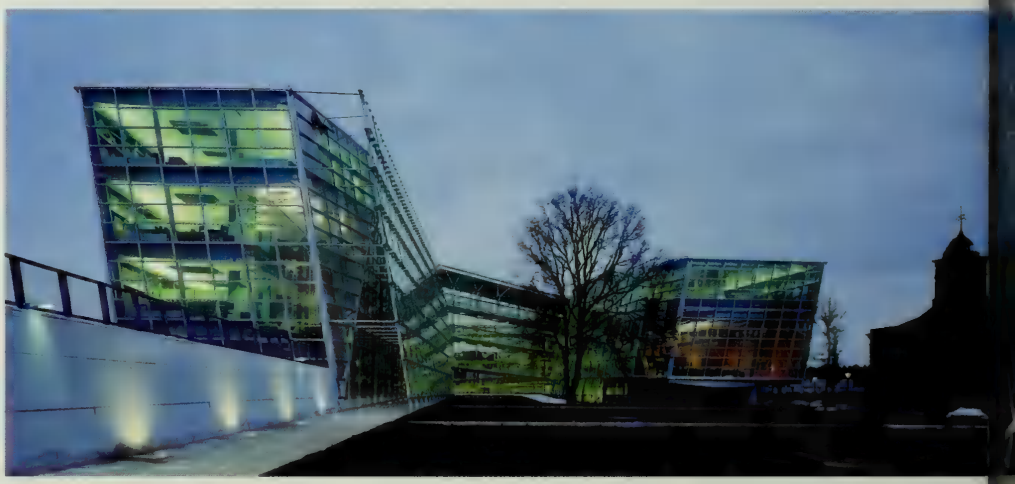
By Raymund Ryan

Architect: *heneghan.peng.architects—Roisin Heneghan, Shih-Fu Peng, Kin Tong, Carmel Murray, Edel Tobin, Martin Rohrmoser, Ulf Klusmann, Paul Giblin, Alicia Gomis-Perez*
Associate architect: *Arthur Gibney & Partners—Leon Shakeshaft, Claudine Keogh, David Harris*
Client: *Kildare County Council and Naas Town Council*
Consultants: *Michael Punch and Partners (engineers); Mitchell and Associates (landscape); Bartenbach Lichtlabor (lighting); Buro Happold (building services, fire, acoustics); RFR (facade engineer); Boyd Creed Sweett (quantity surveyor); Zero G (signage)*

Size: *121,632 square feet*
Cost: *$55.7 million*
Completion date: *December 2005*

Sources
Curtain wall: *William Cox Ireland*
Roofing: *IKO roof membrane*
Wood windows: *William Cox Ireland*
Glazing: *William Cox Ireland; Eiffel*
Locksets: *Doorplan*
Acoustical ceiling: *Durlum-Leuchten*
Cabinets: *Gem Manufacturing*
Paneling: *Woodfit; C. Chamber*
Office furniture: *Bob Bushells; [illegible] Hood*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.



Áras Chill Dara represents the latest in an impressive series of county halls built across the Irish Republic during the past decade. The Irish word *áras* can denote both a formal edifice, such as Áras an Uachtaráin, the official residence of Ireland's president, or simply a large building, such as Busáras, Dublin's central bus station completed by architect Michael Scott in 1953 and one of the nation's few iconic Modernist structures. Áras Chill Dara aims for its own iconic presence, one that communicates a newly confident political and civic culture.

Program

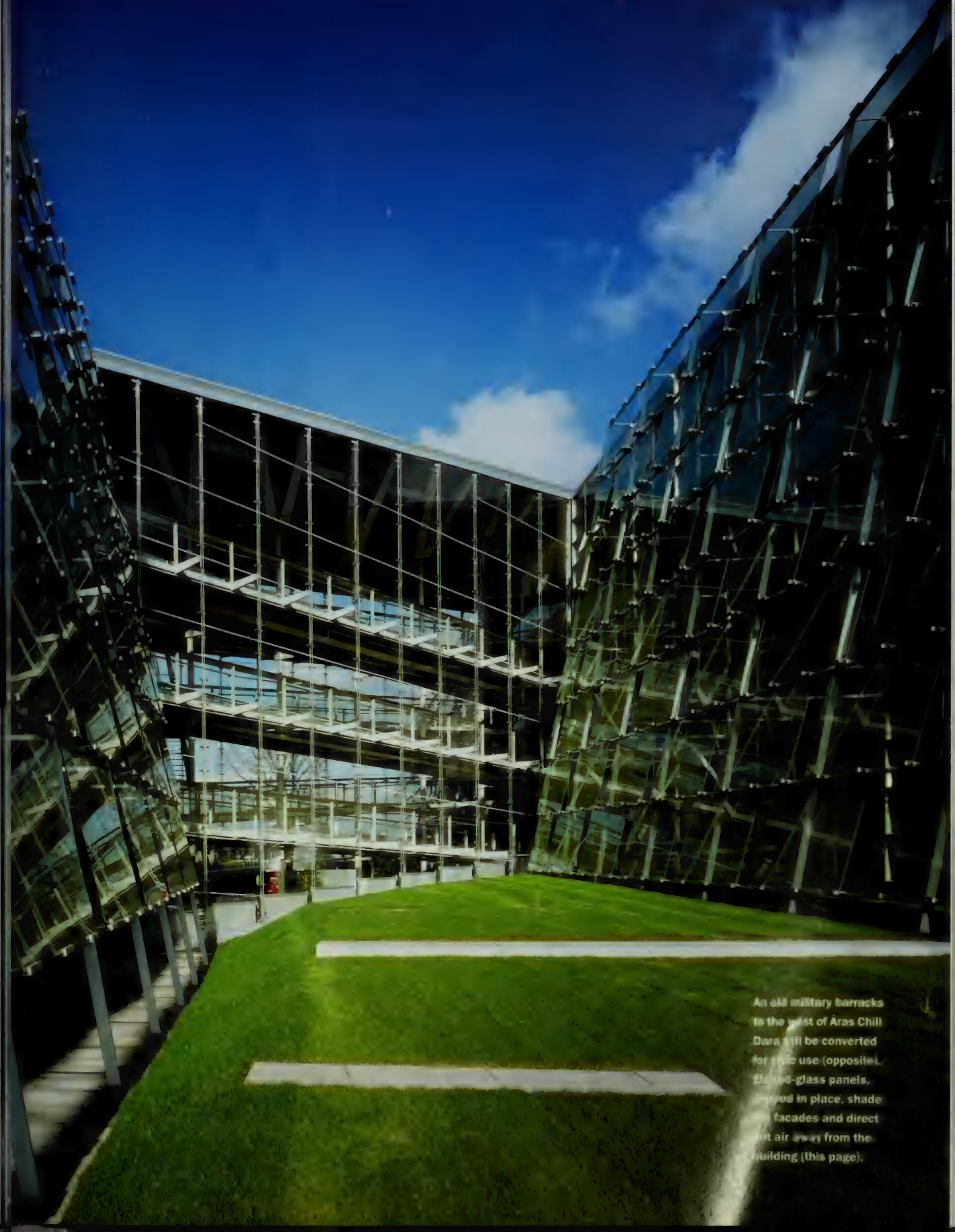
Chill Dara, or Kildare, was a county long known for agriculture and horse racing but now manifests the growth of Ireland's Celtic Tiger economy. The highway connecting Naas, the county seat, to Dublin sprouts high-tech office parks—signs that the capital city is engulfing farmland and smaller satellite towns. Áras Chill Dara sits slightly removed from Naas's main thoroughfare, adjacent to a former British military barracks, where new apartments and hotels ring the older core.

Consolidating both county and town authorities, the building contains a chamber for the County Council as well as offices for more than 400 civil servants. The competition brief requested a structure that displays a clearly urban presence, as well as a sense of invitation toward the public. At the western edge of the site, a tower left over from the barracks, known as the



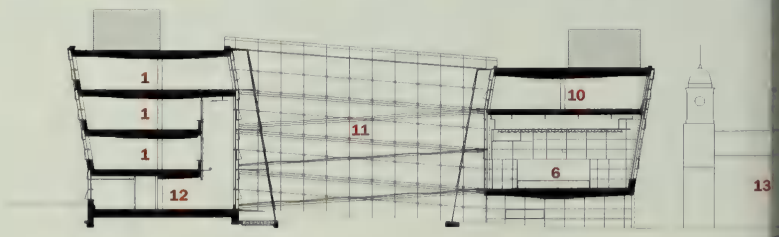
1. *Pedestrian walkway* **2.** *Civic park* **3.** *Main entry* **4.** *Lantern building* **5.** *Parking lot entry*

Raymund Ryan is curator of architecture at Pittsburgh's Carnegie Museum of Art.

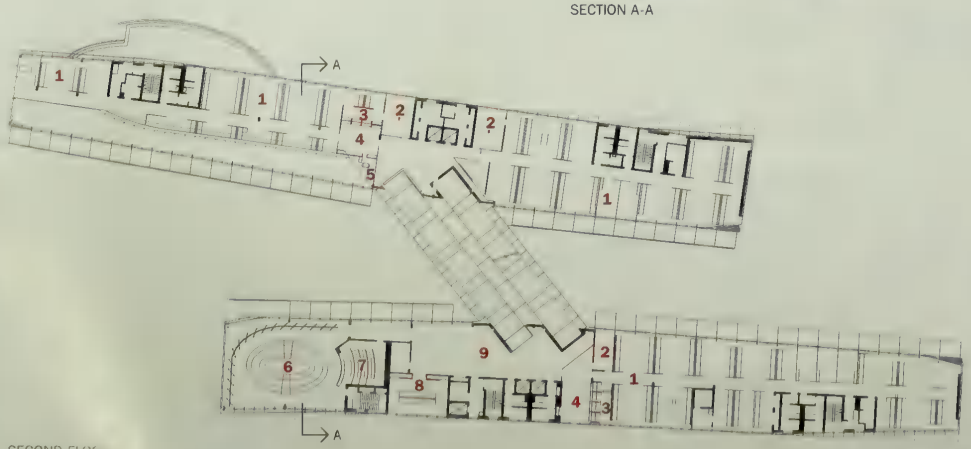


An old military barracks in the west of Áras Chill Dara will be converted for public use (opposite). Etched-glass panels, layered in place, shade the facades and direct hot air away from the building (this page).

Ramps suspended within a glazed passageway control visitor movement between the public areas in Áras Chill Dara's two main volumes, revealing how the facade's outer glass screen works.



SECTION A-A



SECOND FLOOR

N 0 20 FT. 6 M.

1. *Office workstation*
2. *Meeting rooms*
3. *Service counters*
4. *Waiting areas*
5. *Children's area*
6. *Council chamber*
7. *Public gallery*
8. *Committee rooms*
9. *Exhibition area*
10. *Cafeteria*
11. *Walkways*
12. *Main lobby*
13. *Lantern building*

ıtern building, will be renovated cultural uses as part of a new ic park and gardens.

Profiled in RECORD's 2003 sign Vanguard, the Hiberno-wanese architects Róisín neghan and Shih-Fu Peng met as ıduate students at Harvard and ɔcated to Dublin after winning the dare competition in 2000. They rked with associate designer Arthur ɔney & Partners on this project.

ılution

ıs Chill Dara rises from a gently red lawn as two wings tethered by all, transparent umbilical link. This ts external ideogram or iconic age: two bars of pristine office ace tilting outward, not quite par-el to each other and shunted ghtly in plan. The designers set the ɔ bars with a height difference of f a story between them: lower to east, where the main entryway ends to the public street, higher the west, level with a parking lot.

Within the linking volume, lkways appear to float like a ship a bottle. They hang suspended ween a central row of columns d prestressed vertical cables in glass facade. This passage not y bridges the two bars; the gently ped ramps lead upward from the ɔartments most frequented by the ɔlic to the building's less-visited ctions—revealing that Áras Chill ra's splayed mass is not merely mal but a functional response to tterns of use in the interior.

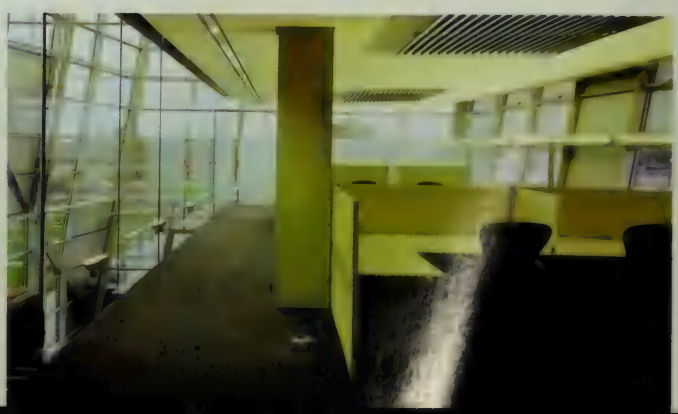
For the building's skin, the hitects set glass panels, four per ɔr, horizontally on the structural ncrete frame; garden-facing ele-ions are entirely glazed, whereas long east and west facades ve solid panels at desk level. A reen of large glass panes, tilted 84 degrees, shields the entry and ts with the inner curtain wall to m a stack for hot-air extraction. pped in place, leaving narrow ps, the panes are screen-printed h skinny green triangles—a grass ɔtif—for solar protection.

Computerized blinds within the uble-glazed external wrapper lect daylight onto exposed concrete ceilings that splay up toward the perimeter. Operable windows at desk height allow for natural cross ventilation across the slender floor plates.



The council chamber volume cantilevers north toward the lantern building (this photo). The main lobby faces it from the ground floor of the opposite wing (below). Operable windows ventilate workstations within the narrow floor plates (bottom).





Commentary

Like heneghan.peng's subsequent competition-winning designs for the Grand Museum of Egypt, in Giza, and a visitor's center at the Giants Causeway in Northern Ireland, Áras Chill Dara synthesizes landscape, structure, and light in memorable ways. It represents one of the first projects to emerge from the Celtic Tiger to convincingly address that vague territory between city and countryside. Neither rural nor urban in any traditional sense, this new Irish Modernism is cognizant of the need for form, imagery, and environmental responsiveness. With this compelling design, Heneghan and Peng make a bravura entrance onto the architectural scene. ■

Two: CALIFORNIA ENDOWMENT
Los Angeles

Rios Clementi Hale Studios unearths the diversity of a neighborhood to transform a sad lot into a vibrant headquarters and public resource

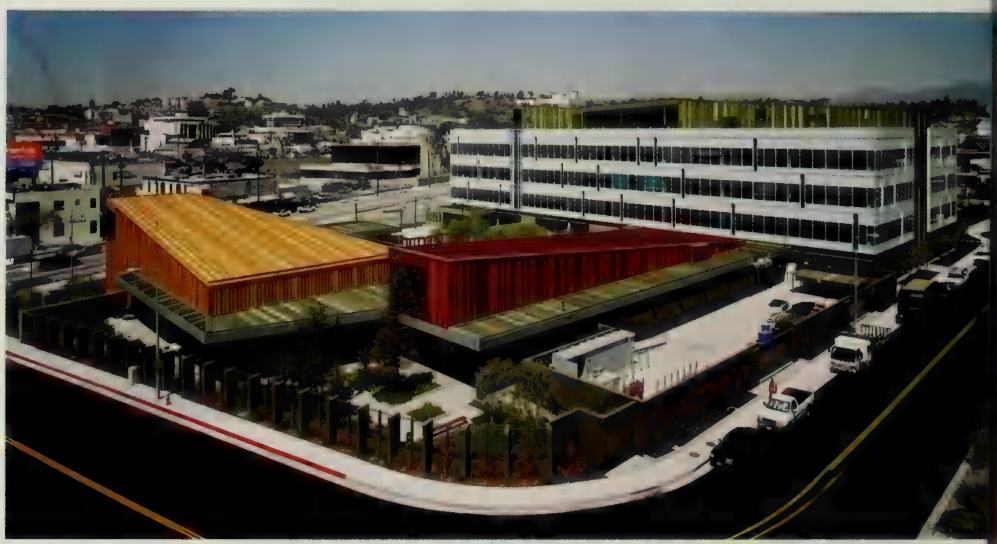
By Russell Fortmeyer

Architect: *Rios Clementi Hale Studios—Mark Rios, FAIA, Frank Clementi, AIA, Robert Hale, FAIA, principals; Samantha Harris, project landscape architect; Jennifer Williams Reynolds, Ola May, Jennifer Charles, Ichiro Kakami, design team*
Architect of record: *House and Robertson Architects—Doug Robertson, AIA, principal; Jim House, AIA, principal*
Interior architect: *DMJM/Rottet—Richard Riveire, AIA, principal*
Client: *The California Endowment*
Consultants: *Englekirck & Sabol (structural); IBE Consulting Engineers (m/p); Kocher Schirra Goharizi (electrical); Horton Lees Brogden (lighting design); Cibola Systems (a/v); Matt Construction (contractor)*

Size: *118,000 square feet*
Cost: *Withheld*
Completion date: *April 2006*

Sources
Curtain wall: *Benson Industries*
Aluminum siding: *Custom Metal Fabricators*
Aluminum windows: *Benson*
Glass: *Viracon*
Lobby floor: *Terrazzo*
Office furniture: *Bernhardt "Shift"*
Office seats: *Herman Miller "Aeron"*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.



The California Endowment's interi courtyard arrangement allows the complex to respond to various neighborhood contexts, including the Spanish Revival Terminal Ann Post Office (opposite, bottom).

Few Los Angeles neighborhoods boast the mix of history and diversity that surrounds the 6.5-acre site of the California Endowment's new headquarters, located on a once-dilapidated lot near Chinatown and the original 1781 pueblo. Locally based Rios Clementi Hale Studios (RCHS) took advantage of this condition by approaching the project as a collaborative mix of landscape and building. Historical research helped the studio incorporate community needs with the Endowment's goals. "The building is really about being as generous and open with its space as possible," says Bob Hale, FAIA.

Program

The architect's commitment to an open dialogue helped it win the 2002 design competition to replace the Endowment's existing offices in suburban Woodland Hills. The nonprofit foundation's mission to serve the health-care needs of the state's underprivileged—and a desire to raise its profile within the downtown business core—shaped the design brief. Cynthia Ann Telles, the Endowment's board chair, sees the new building as "a place of synergy for the community."

Solution

Embracing the Spanish-style, Southern California tradition of courtyard buildings, RCHS broke up the program by locating meeting areas within detached pavilions that define an expansive, 16,000-square-foot outdoor plaza. A four-story office tower on the north side of the co includes administrative offices or ented around a full atrium.

Subtle customization of stan dard materials, a hallmark of RCH work, is evident throughout the complex. The designers altered th conventional curtain wall of the of block by randomly inserting recess glass panels, laminated blue to dra a contrast between the blue L.A. skies and the sleek, white interiors

Seen on approach by car—typical for L.A.—the pavilions' pitch







Rios Clementi Hale intends the building to represent a dialogue between the "high-tech" features of its interior spaces and the "low-tech" aspects of the surrounding landscape (above). The project, though uncertified, would achieve a USGBC LEED Silver rating.

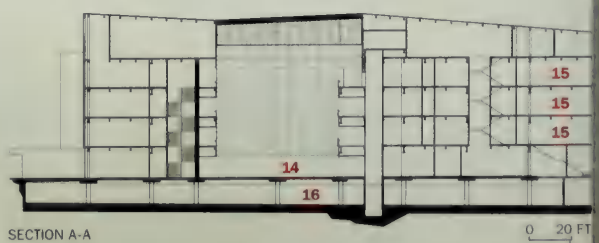


GROUND FLOOR



UPPER FLOOR

1. *Entrance*
2. *Child-care room*
3. *Parking*
4. *Health center*
5. *Boardroom*
6. *Gallery*
7. *Café*
8. *Courtyard*
9. *Informal conference*
10. *Multipurpose room*
11. *Alameda Street*
12. *Conference room*
13. *Typical office*
14. *Lobby atrium*
15. *Typical office floor*
16. *Parking*



SECTION A-A

fs, and the color striations of their minum panel cladding, shift and ter. The steel-framed buildings' or scheme intentionally responds he immediate urban context: Red es pick up the tile roofs of Union tion and Olvera Street, and the atz Orientalism of Chinatown; ire nods to nearby masonry con- uction; and the greens connect he broader landscape.

Balancing the Endowment's ire for a transparent facility inst tangible security concerns, HS placed a public gallery with ecure entrance along the street le allowing views and controlled ess into the landscaped court- d. Riparian plantings reflect at might have originally existed he site, which is not far from the . River, while the other landscap- symbolizes the Endowment's tewide charter: Redwoods that nmon the Sierra Nevadas and thern coastal region; pepper es, the central valley; and a small —containing medicinal plants, h as aloe vera, pennyroyal, ender, and rosemary—that sug- ts a Spanish mission garden.

mmentary

ject by project, RCHS, a 21-year- practice, has transformed itself a quintessential L.A. firm. Its lrose Avenue office sits atop its re, notNeutral, that sells the stu- s own line of dishes, textiles, l children's furniture. This interdis- inary approach to design results rojects such as the Endowment t embody the adventurous spirit he city without sacrificing a more loratory urban ambition. Though ne might question RCHS's decision rient the complex around an inner rtyard with suburban-style land- ped setbacks along its perimeter, low-scale pavilions tame the ger office slab and ease its higher nsity into the neighborhood. reover, the lively embrace of color, ether with the nuanced landscape ails, bring a confident architectural lity to an area that had languished ast years. The Endowment attests t even simple office buildings can freshly investigated. ■





Blue laminated glass panels, recessed in the curtain wall, add visual interest to the crisp, white interiors (left). The four-story atrium lobby (below) mirrors the organizational schema of a fountain courtyard that is accessible on the south side of the Endowment complex.

Three: 223 YALE AT ALLEY24
Seattle, Washington

NBBJ proves that divide and conquer can mitigate the scale of long floo plates, with its new offices on a large, mixed-use urban block.

By Randy Gragg

Architect: *NBBJ—Brent Rogers, AIA, Alan Young, AIA, design principals; Scott J. Johnson, AIA, lead technical architect; Rysia Suchecka, design partner; Maureen Hylander, project manager; Melanie Taylor, lighting designer; Eric Levine, environmental graphics; Sean Airhart, Kelly Griffin, Maria Mendez, Stephen Kellogg, design team*
Client: *Vulcan Real Estate; PEMCO Mutual Insurance*
Consultants: *Flack + Kurtz (mechanical systems designer); McKinstry (mechanical design build); Holmes Electric (electrical); Magnusson Klemencic Associates (structural); BRC Acoustics (acoustical); Murase Associates (landscape); Egis (LEED tracking)*

Size: *362,500 square feet (Alley24); 78,000 square feet (223 Yale)*
Cost: *Withheld*
Completion date: *February 2006*

Sources
Precast-concrete panels: *Conforce*
Paper-and-resin siding: *Richlite*
Motorized blinds: *Nysan*
Windows: *All New Glass*
Custom woodwork: *Surgent; GR Plume*
Flooring: *Expanko; Yemm + Hart*
Furnishings: *dTank; Heartwood; Herman Miller; Emeco; Steelcase*
Ambient lighting: *Focal Point*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.

Twenty-two years ago, the Seattle-based architecture firm NBBJ was one of the first major companies to move back into Pioneer Square, the city's then-neglected historic heart. The firm's 200 employees helped spur a neighborhood renaissance. But having grown to 330 employees, and hampered by offices that were spread across six floors, in 2004 it decided to move and again play the agent of urban change. It became both the designer and the anchor tenant of Alley24, a mixed-use complex located in South Lake Union, a former industrial area being transformed by Vulcan Real Estate, Microsoft cofounder Paul Allen's firm.

Program

NBBJ's new headquarters are located within 223 Yale, the office component of Alley24. The site, a 256-by-360-foot city block, had been anchored by the Richmond Laundry, built in phases between 1917 and 1945. A landmark designation mandated the preservation of its masonry facade. Rather than simply piling 214,000 square feet of offices and retail shops, as well as 172 apartments, behind the laundry's historic walls, NBBJ wanted to fashion a live/work/play environment that would showcase the firm's commitment to sustainability, what design principal Brent Rogers describes as "doing the most with the least." Additionally, the firm wanted to achieve a LEED Silver rating for the project.

Randy Gragg covers architecture and urban design for The Oregonian.



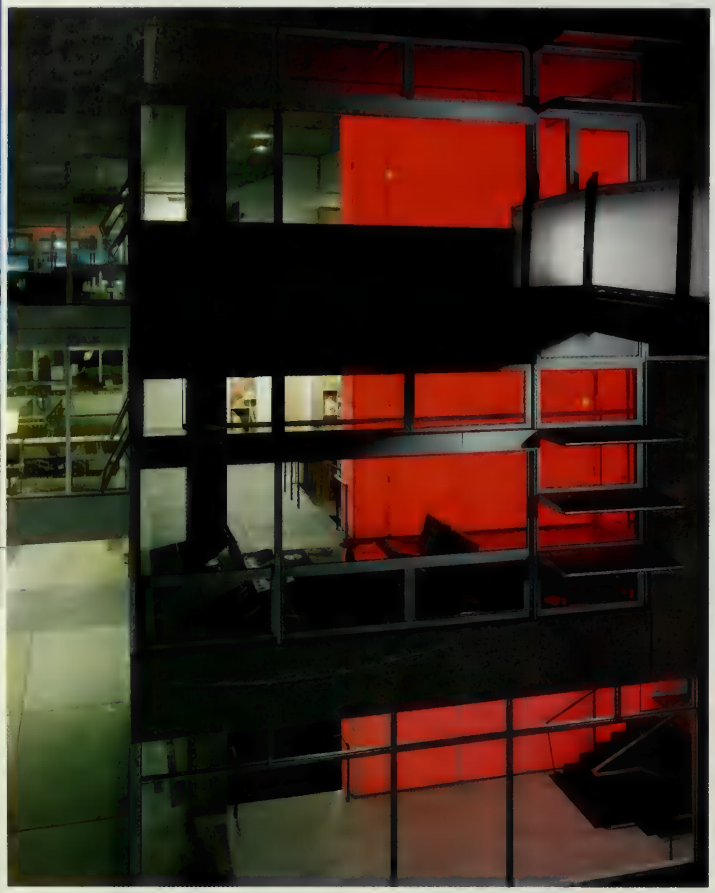
Recycled-paper-and-resin panels clad the apartment blocks; concre cast with grooves to create shado patterns, covers the office and retail buildings in Alley24 (above). Computer-monitored, motor-driven blinds cover the lower part of mos windows; shades bounce sunlight inside and lessen heat gain (opposi

Solution

The need to infuse the entire Alley24 block with light and air suggested a classic urban design scheme: Two midblock alleys that divide the site into quarters. Rogers clustered the entrances to offices, apartments, and underground parking around the alleys' crossroads, creating a lively "Main and Main" feel; to ensure the perimeter remained active, he spread shops along the street-facing elevations. Town houses and flats occupy the former laundry, while apartment buildings flank it. These steel-framed buildings are clad in an innovative, recycled-paper-and-resin material called Richlite, while patterned cor crete panels cover the posttension concrete office buildings.

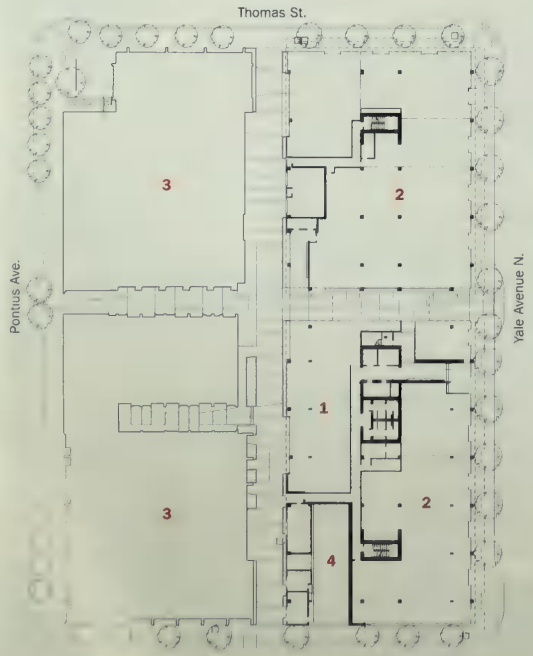
NBBJ principal Alan Young led the team designing the firm's new offices in 223 Yale, which is named after its street address. He located the main reception area as well as art gallery on the ground-floor corn







The main entry to 223 Yale, the office component of Alley24, sits at the intersection of two midblock alleys (above left). A zone containi conference rooms an other gathering spac bisects each floor pla (above right).



SITE PLA... ST FLOOR

N 0 30 FT. 9 M.



SECOND FLOOR



THIRD FLOOR

1. *Entry to 223 Yale*
2. *Retail*
3. *Residential*
4. *Garage entry*
5. *The "Giant Steps"*
6. *The "Big Table"*
7. *Coffee area*
8. *Model shop*
9. *Photocopier room*
10. *Library*
11. *Elevator lobby*
12. *Skybridge to roof*
13. *Café*
14. *Presentations area*
15. *Server room*
16. *Reprographics*
17. *"Phone booths"*
18. *Conference room*
19. *Workstations*
20. *Unleased space*

Alley24's internal intersection. A matic stair, made of reclaimed uglas fir, ascends from this lobby studio level. Dubbed the "Giant ps," it doubles as seating for npanywide meetings as well as ghborhood gatherings.

Fostering a sense of community d been a challenge in NBBJ's ver- lly diffuse former headquarters. nically, 223 Yale posed a problem orizontality: The firm now occu- s 75,000 square feet on two floors t, measuring 120 by 360 feet ece, rival the size of football fields. loing the overall development's an plan, Young bisected the floor tes with what is, in effect, a town are: a central space containing a hen, model shop, library, central ir, and conference rooms. Its rt is a long counter, known as "Big Table," where staff members d meetings, work on projects, or ually commune over coffee.

Smaller conference rooms wn as "phone booths," for one-on- meetings and private calls, form entral spine that runs lengthwise ugh each floor. Open-plan work- tions ring the perimeter, ensuring t all staff sit within 45 feet of the dows, all of which are operable.

mmentary

h speculative office buildings v achieving LEED Gold and even tinum, a Silver is low-hanging t, particularly for build-to-hold nts such as Vulcan. Green roofs d rainwater recycling, photovoltaic ls, or on-site power generation ght have made Alley24 a true stainability leader. But the big here is social sustainability. By ning conviviality into an organiz- principle for both the overall and NBBJ's own offices, Rogers Young have created excellent totypes for large city-block velopments and large-plate office ldings. The "Giant Steps" and the g Table" add another level, effec- ly turning NBBJ's headquarters an extension of the street. Like basic ingredients of good urban- , these elements encourage ance meetings and the casual change of ideas. ■





A periodicals library (above) is just one of many areas where NBBJ's staff can congregate near the "Big Table" on the first office level. The "Giant Steps," made of reclaimed Douglas fir, ascend from the ground-level lobby to the office floors above, doubling as bleacher-style seating for companywide meetings (right).

Four: DEPARTMENT OF HEALTH SERVICES OFFICE BUILDING

Richmond, California

Studios Architecture highlights functional elements to create a social hub for the third phase of a state government campus.

By Mimi Zeiger

Architect: *Studios Architecture—Charles Dilworth, AIA, principal in charge; Alan Tom, AIA, project manager; Elizabeth Sporer, AIA, project architect; Ben Chuaqui, AIA, job captain; Tiffany Redding, AIA, Nicholas Tsuk, AIA, Enrique Sanchez, Will Huchting, Stuart MacDonald, AIA*
Client: *State of California*
Consultants: *Rutherford & Chekene (civil, structural, geotechnical); Mazzetti & Associates (m/e/p, security); SWA Group (landscape); Studios Architecture (lighting); Charles Salter Associates (acoustical); Hesselberg Keesee & Associates (elevator); Sustainable Design Resources (sustainability); Teecom Design Group (telecommunications); Simpson Gumpertz Heger (waterproofing); Cermak Paterka Petersen (wind)*

Size: *200,000 square feet*
Cost: *$32.6 million*
Completion date: *September 2005*

Sources
Curtain wall and aluminum windows: *Architectural Glass & Aluminum*
Concrete: *Peck & Hiller; Dolan Concrete*
Panels: *Rheinzink standing seam*
Acoustical ceilings: *Armstrong*
Woodwork: *DRS; Marcor Woodwork*
Plastic laminate: *Passion Design*
Resilient flooring: *Forbo Marmoleum*
Carpet: *Monterey Carpets*

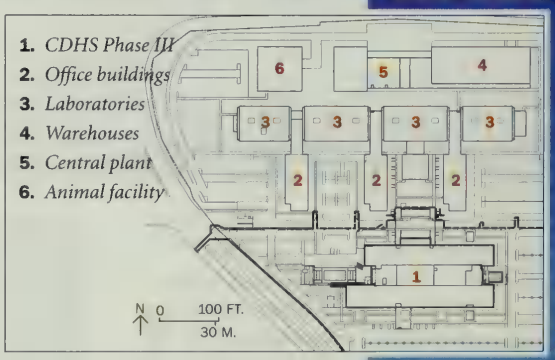
For more information on this project, go to Building Types Study at **archrecord.construction.com**.

In designing a new office building for the State of California Department of Health Services (CDHS), San Francisco–based Studios Architecture took what might have been a banal cube, hemmed in by parking lots and laboratories, and created a new public face for the CDHS, one in keeping with its mission to promote wellness.

Program

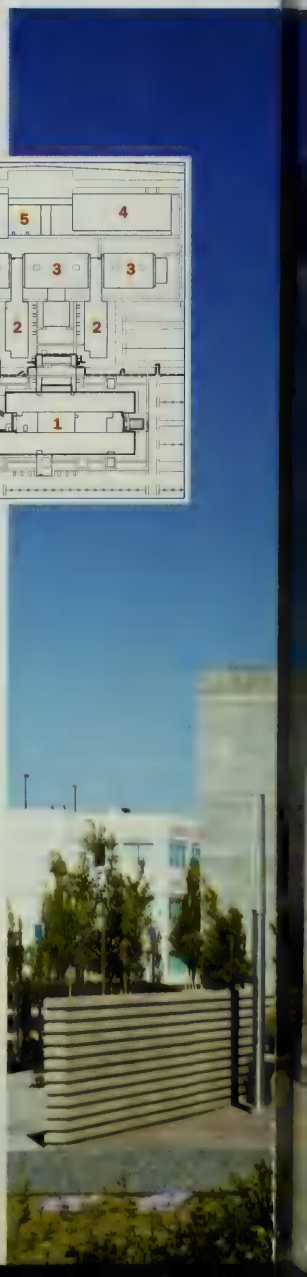
Representing the third phase of a master plan, this 200,000-square-foot structure consolidates the offices of 18 agencies, including Childhood Lead Poisoning Prevention, Environmental Health Investigation, and Sexually Transmitted Disease Control. It sits on the CDHS's Richmond, California, campus—a former industrial site, squeezed between a freeway and railroad tracks.

Although the program is straightforward—offices, open work spaces, a café, a library, meeting and training rooms—Studios faced the bigger challenge of how to encourage a sense of community among diverse state agencies integrated under one roof. Dr. Raymond Neutra, who heads the Division of Environmental and Occupational Disease Control, represented the building's users during design development. "One of the problems in a big scientific building is that we become absorbed in our own work and don't know what anyone else is doing," observes Neutra, who happens to be the son of architect Richard Neutra. "I said to the architects, 'I would like some serendipity, so that we bump into each other by accident. Let's have a coffee bar and stairways that are fun to walk on.' "



Solution

Charles Dilworth, principal architect at Studios, took Neutra's suggestions to heart and added his own item to the brief: innovation. A series of half-constructed, blocky laboratories nearby supplied a bit of backhanded inspiration. Dilworth designed a three-story, cast-in-place-concrete structure with a rectangular plan: "It's just a big box," he says. But the main entry, located on the western elevation, belies his modesty. It greets the public with an elongated court created by jostling the facade—pushing the office wings out and recessing the doors. Exaggerating this dynamic, a freestanding concrete wall, wrapped by an exit stair, extends westward.



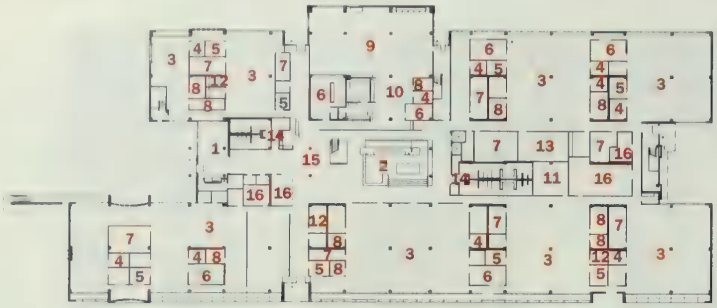
PHOTOGRAPHY: © TIM GRIFFITH

Mimi Zeiger, founding editor of loud paper, *is author of* New Museums.





A brise-soleil establishes a formal rhythm on the south facade (top left). Standing-seam zinc panels contrast with structural concrete, patterned by formwork holes (top right). On the west elevation, the entry is recessed behind an exit stair (below).

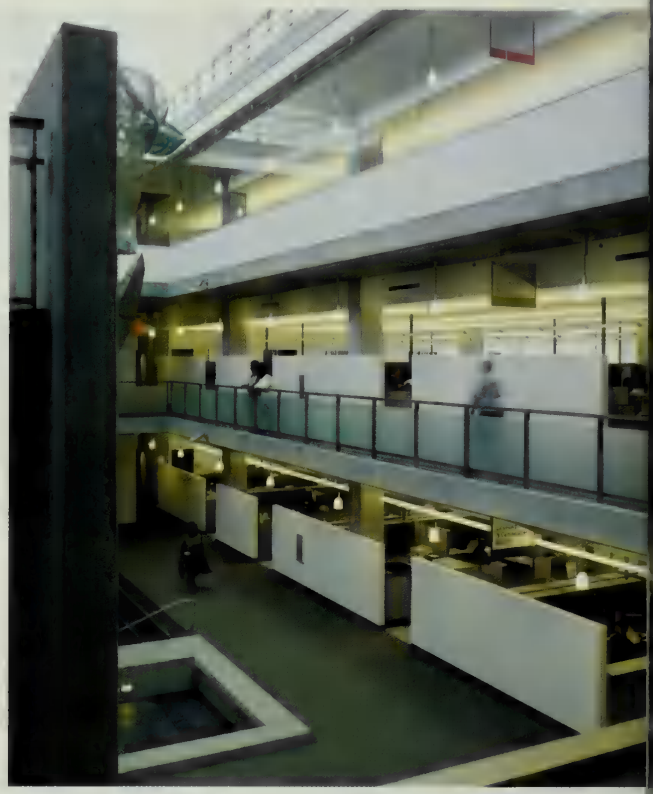


FIRST FLOOR

N 0 20 FT. 6 M.

1. *Lobby*
2. *Light court*
3. *Office workstations*
4. *Private office*
5. *Quiet room*
6. *Conference room*
7. *Records storage*
8. *Storage*
9. *Library stacks*
10. *Reading room*
11. *Work area*
12. *Laboratories*
13. *Training room*
14. *Restrooms*
15. *Coffee bar*
16. *Service*

Workstations abut a central atrium, where a café, artworks, and a stair encourage employees to congregate (right). A wood-veneer screen marks the northern edge, filtering views and adding warmth (below).





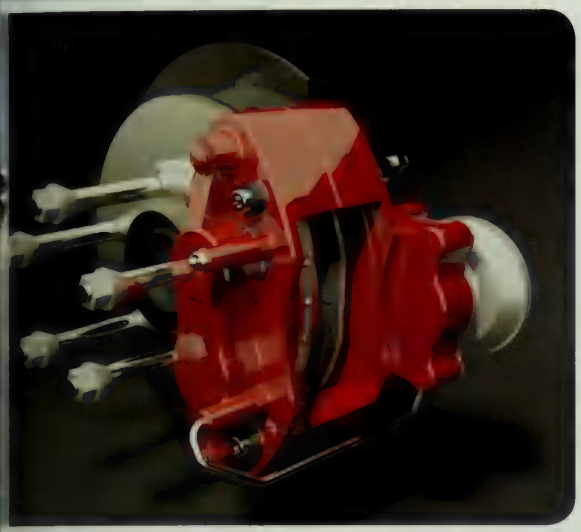
On the interior, a central atrium forms the building's social hub and contains a café, seating areas, and an open stair. Clerestory windows illuminate this four-story volume, while a curved ceiling, wrapped in Eurospan fabric, bounces sunbeams down to the ground floor.

California's green-buildings program mandated that CDHS Phase III earn the equivalent of a LEED Silver rating. Accordingly, Dilworth drew as much daylight into the offices as possible. Along the building's north and south elevations, which are its longest sides, he employed a low-tech solution to reduce solar gain and glare: a Le Corbusier-like brise-soliel. Horizontal aluminum sunshades screen the windows, which are set back 8 feet from the edge of the floor plate. The depth and spacing between each louver change to account for the sun's angle: narrower and closer together on the top floor, wider and with larger gaps on the lower floors. This variation establishes a utilitarian rhythm within the facade.

Commentary

CDHS Phase III is a signature building dotted with good public art and architectural flourishes—a surprise given the bureaucratic stumbling blocks that often plague governme projects. The success of the Studio design comes from its ability to mi the most out of a few choice move The freestanding exit stair, for instance, is sculptural and dramati a Modernist gesture that one migh expect to find in bigger-budget pro ects such as museums.

CDHS employees have responded well to the design, actua using the atrium as a gathering spa and taking the stairs rather than th elevators. Which is why it is unfortu nate to see the library, where Stud clearly spent a lot of time detailing carrels, locked, with its stacks hal empty. It seems that when they began planning in 2001, both the client and the architect romanticiz the idea of the library as a social space and failed to recognize the digital revolution that made scientif books and journals available online One hopes that the CDHS will ada its unused library for a new functio while staying true to Studio's sensit ity for mixing people and program.





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he Phantom Menace

E ROCKWELL GROUP'S FLYING CHANDELIER FOR A NEW LAS VEGAS PRODUCTION OF *THE PHANTOM OF E OPERA* TAKES THE FIRM'S THEATRICAL PHILOSOPHY TO NEW TECHNOLOGICAL HEIGHTS

tussell Fortmeyer



David Rockwell says designing the theater space for *Phantom* was exciting because he could "augment the original production, with the theater as an immersive opportunity to become part of the story."

he hardest-working performer in Las Vegas isn't Wayne Newton, after all, but a 2,100-pound, Baroque-style chandelier that flies apart, crashes to floor, and glides up into a pocket in the ng for the rest of the show.

That show is a new production of *The ıtom of the Opera*, Andrew Lloyd Webber's trical phenomenon, reconfigured for the ·tian Hotel and Casino as a Las Vegas spec- lar simply called *Phantom*. The centerpiece e Rockwell Group's redesign of the show is :handelier, which free falls into the audi- —stopping just short of 15 feet above the ter's floor—at the end of an abridged first The traditional fourth wall of theater is :hed as the audience gasps in terror. In the *Vegas Sun*, Jerry Fink wrote that prior to ıg the production, he had "never heard ause for special effects." But David Rockwell, AIA, distinguishes the / from a display of special effects, preferring to think of it as magic. : difference between the two is that magic has a story," Rockwell says.

Rockwell isn't the only person to say that the story of *Phantom*, d on a 1910 novel by Gaston Leroux, has been told exhaustively, but ımped at the chance to work with legendary Broadway director ›ld Prince, who had directed the production of *Fiddler on the Roof*, which was Rockwell's first Broadway experience. While the producers and Prince wanted to transform the show for Vegas, the team at the Rockwell Group did not want to reinvent Maria Bjornson's Tony-award-winning set that originated in the 1986 London production. "We wanted to augment the original production by having the theater as an immersive opportunity to become part of the story," Rockwell says.

The transfer of Broadway productions to Las Vegas hasn't always been a success. Recent productions of *Avenue Q* and *Hairspray*, while still attracting solid crowds in New York, failed to connect with Vegas audiences and closed early. *Phantom* has a unique blend of stage baggage: It is currently the longest-running show in Broadway history, and there are more than five professional productions in operation worldwide, including two touring companies, and a film version debuted in 2004. That might have worked against mounting a permanent production in Vegas, but producers had the benefit of reconceiving the show for an entirely new, 1,800-person theater.

Planning for a spectacle

The Rockwell Group, based in New York, has established itself through a number of high-profile projects, including the Kodak Theatre in Los Angeles, the Mohegan Sun casino in Connecticut [RECORD, March 2002, page 187], and the highly anticipated interior desig for the JetBlue Terminal at New York's John F. Kennedy Internatio al Airport, which should be completed by 2009. Furthermore, Rockwell has designed sets for Broadway productions such as *Hairspray* and *Dirty Rotten Scoundrels*. He repeatedly says, in interviews and writings, that his chief concern in all aspects of his design practice is the experience of the viewer in his spaces.

ONTINUING EDUCATION

Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/ *AIA Continuing Education article. To receive credit, turn to page 124 and follow the instructions.*

EARNING OBJECTIVES

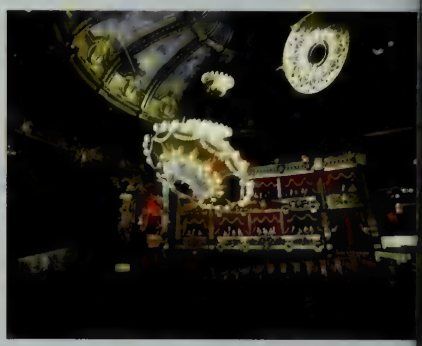
fter reading this article, you should be able to:

- *Describe the movement in the deconstruction of the chandelier.*
- *Describe the technology used to achieve the illusion of the chandelier crashing.*
- *Discuss the concept of theatrical experiences in architecture.*

is story and more continuing education, as well as links to sources, papers, and products, go to **archrecord.construction.com**.









The chandelier rests i four scattered pieces covered in dustcloths at the beginning of the first act. After the show's story flashes back to the heyday of the opera house, the dustcloths are quickly removed, the chandelier's lights flicker on, and the components begin their flight pattern around the theater, assembling into a single fixture in the central dome (top left). After falling at th end of act one, the chandelier is hidden in a cavity above the dome for the remainder of the show

"The Paris Opera house represents a transformation in architecture with the person moving through it forcing that transformation," Rockwell says. "When you come up those stairs in the lobby, walk across those little spaces and into the boxes, and explode into the theater, you're in an extremely powerful spatial sequence." The Venetian Hotel wasn't interested in recreating the original opera house, with its classically tiered box arrangement and horseshoe plan. Rockwell designed the lobby and theater in an elegant, contemporary style. A few elements in the lobby nod to the show's narrative, including LED-lit glass boxes etched with the image of a chandelier enclosing cut-glass fixtures inside. The tiered gilt boxes stretching along either side of the proscenium have no functional purpose other than to frame the spectacle and buttress the immersive experience of it.

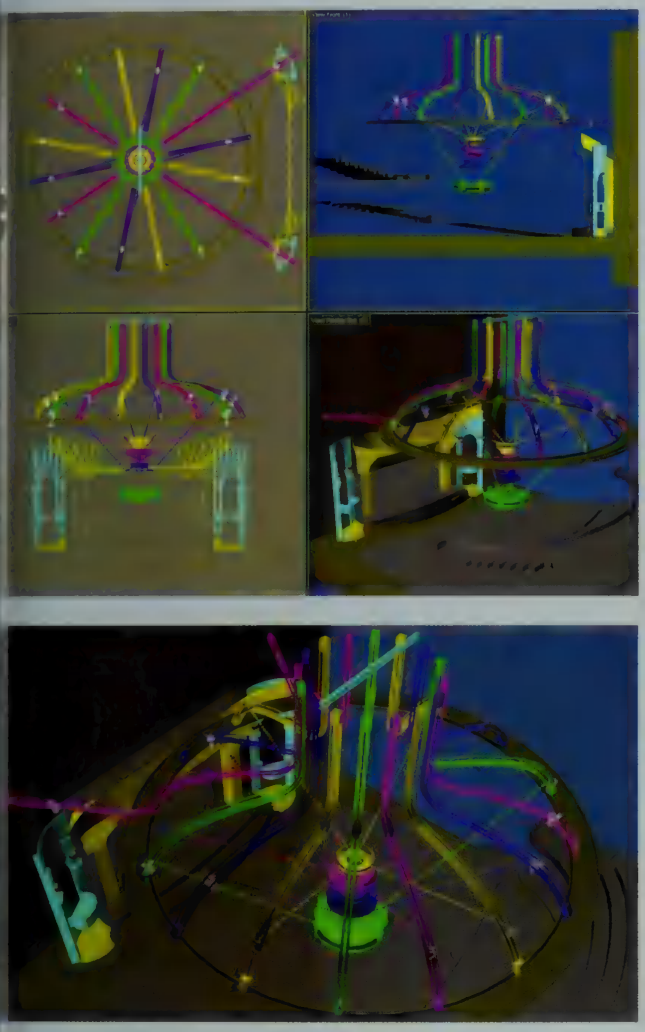
Rockwell's book, *Spectacle*, produced with designer Bruce Mau and published in November 2006, explores the idea of collective events "loaded with magical possibilities." It includes essays from a diverse group of contributors—theater director Julie Taymor, casino owner Steve Wynn, and art critic Dave Hickey—and profiles of some of the world's better-known public spectacles: *Burning Man*, *Running of the Bulls*, and *Kumbh Mela*.

"Theatrical experiences draw a lot of their power from the notion of their ephemeral and fleeting qualities, which is tied to our c humanity," Rockwell says. "The goal of timelessness and permanence lead to a kind of frozen, non-risk-taking approach." Las Vegas architect certainly doesn't attempt timelessness, effusively embracing the urge thematically decorate that was central to the city's identity long bef Robert Venturi and Denise Scott Brown immortalized it in their 1 book, *Learning From Las Vegas*. Rockwell considers the Strip a mix chamber. "I don't think people are going for gambling, entertainm shopping, or drinking, but the net sum of those things," he says.

Rockwell doesn't storyboard an architectural project and its of technology in the way Walt Disney's Imagineers approached the cla rides at Disneyland, but he has used his experiences in theater as a labo tory for his ideas about architecture. "My interest in theater is ab collaboration, technology, and design in the service of storytelli Rockwell says, with particular interest in how all the elements design—lighting, sets, color, decor—serve the same purpose.

Curtain up, light the lights

Rockwell wanted the $40 million theater, which was built within





Fisher Technical Services modeled a line diagram (pictured here) of the four components of the chandelier in the firm's proprietary software, Navigator. The program calculates the chandelier's performance trajectory, correcting for the pieces' tendency to tip vertically on wide turns around the theater.

netian in the shell of the closed Guggenheim Las Vegas branch signed by the Office for Metropolitan Architecture [RECORD, January 02, page 101]), to play a central role in the show's narrative. "When ople come into the theater, we wanted to lower expectations," he says, erring to the beginning of the show, where the theater is shrouded in

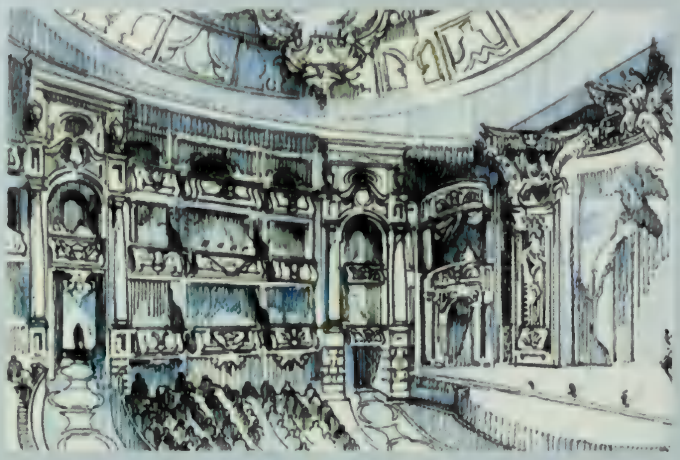
THEATER IS ABOUT COLLABORATION, ECHNOLOGY, AND DESIGN IN THE SERVICE F STORYTELLING," ROCKWELL SAYS.

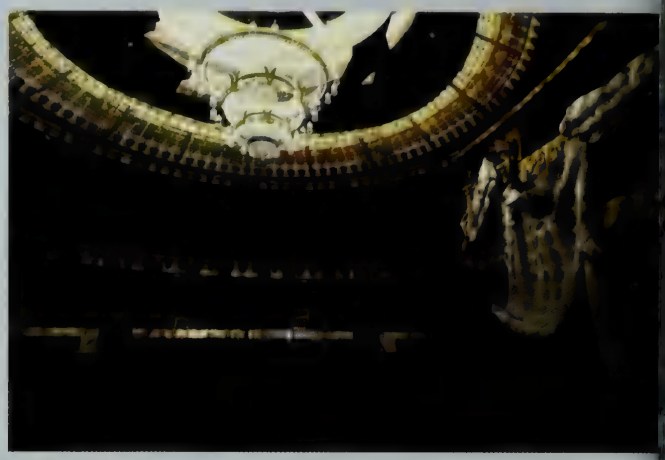
y dustcloths and an auction to sell remnants of the opera house is der way. With a Baroque pomp attributable to few in the theater out- e of the composer Andrew Lloyd Webber, the show whisks back in time he dustcloths dramatically sweep into crevasses and the chandelier ins its twisting, flying journey up to the domed ceiling.

Charles Garnier's design for the Paris Opera, now known as the era Garnier, was completed in 1875, and while its chandelier never fell m its lofty perch, it is said the inspiration for Leroux's novel came from 1896 incident where one of the fixture's counterweights fell and killed a patron. Although Garnier's neo-Baroque architecture, which he designated the style of Napoleon III, fell out of favor, no one has ever criticized the opera house for lacking theatricality in the way its elements cohere as a setting for the communal parade of high society. The Vegas chandelier is based on the original design with three main tiers of lights and complicated joinery and decoration befitting the gilt splendor of the opera.

The Rockwell Group designed the chandelier to be split into four components, each hung by four steel cables attached to a series of winches hidden in the ceiling above. The chandelier lines up vertically, with each element nesting within another to appear as if it were one unit. The winches maneuver along 16, 52-foot-long tracks that follow the ribs of the theater's fake domed ceiling. (The Opera Garnier's present ceiling is plaster and was painted by Marc Chagall in 1964.)

The lights on the chandelier, conceived by designer Howard Eaton in concert with lighting designer Andrew Bridge, are powered by batteries typically used in hybrid automotive design. Since only the steel cables could be used to support the chandelier, the batteries were mounted within the four frames of the chandelier's components. After performances, the chandelier is lowered and the batteries can be charged. These







The Rockwell Group undertook a variety of representational methods in its design for the *Phantom* theater, including an elaborate series of cartoons to indicate early concepts (above left). The design team then modeled the theater and the concept of the flying chandelier in the Autodesk 3ds Max software (above). Although Rockwell originally wanted the side balconies of the theater to be accessible to patrons, the Venetian administration nixed the idea. In the final design, the balconies foster an immersive environment for the audience during the performance. Prior to the show's beginning, the balconies are draped in dustcloths that, once the show's story flashes back in time, are dramatically pulled into cavities through an automated system, revealing the costumed mannequins behind (left).

elements were designed as well as modeled in AutoDesk's 3ds Max, prior to undertaking a separate process to actually make the chandelier fly. (See www.archrecord.com for a demonstration of the chandelier in motion.)

Automating destruction

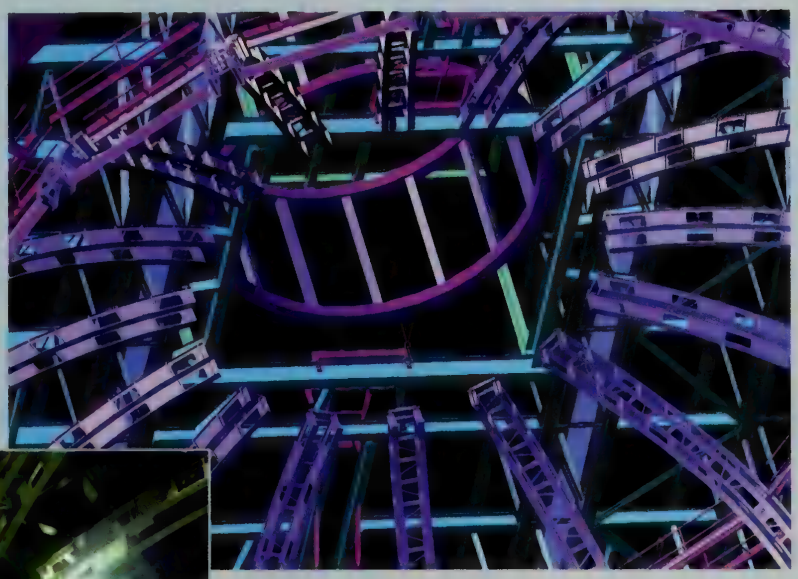
The Rockwell Group approached Scott Fisher, an engineer and a veteran technical guru of flashy Vegas productions, such as those of Cirque du Soleil. His Vegas-based Fisher Technical Services group developed, among other things, an early mechanical installation for an amusement ride at the Experience Music Project in Seattle and consults on Hollywood projects, such as the first two *Spider-Man* films. Unlike Fisher's other projects, *Phantom* required more than a simple two-dimensional trajectory. "It was a new feature for us to move an object around in three dimensions," Fisher says. "The first thing I did leaving the concept meeting was to tell my team we'd develop 3D software."

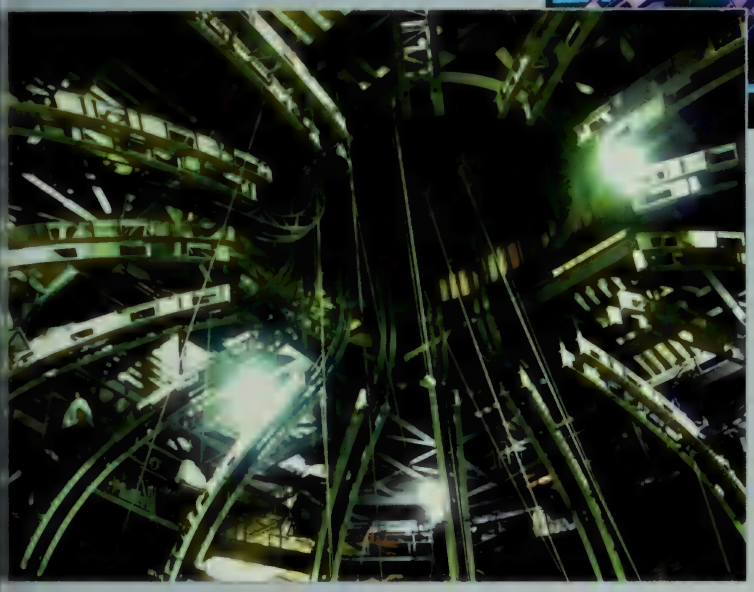
The team's research concluded that no one had tackled the concept of "n[illegible]ing suspension points," with 16 cables hung through pulleys that were themselves traveling along a curved track. Thus, Fisher tapped his contacts in academia here and abroad to put together a team that could work through the algorithms needed to make the chandelier fly.

The team put together a proprietary modeling program it call[illegible] Navigator. The plan was to build a simple line diagram of the chandelier[illegible] four parts, set up digital parameters, and let the computer do the thou[illegible] sands of complicated calculations necessary to carry out the chandelier[illegible] performance. The equations of algebra, trigonometry, and vector analys[illegible] embedded in the program enable it to plot the paths of all four compo[illegible] nents as they fly through space, but unlike other 3D software program[illegible] the chandelier required the addition of a more general physics. "Once yo[illegible] move the objects outside of the center radius, they have a tendency to ro[illegible] on you and go vertical," Fisher says. "The computer had to calculate th[illegible] center of gravity and determine how the outside lines can compensate fo[illegible] the fact that it is rolling and tipping."

After the first eight weeks of development, Fisher says the tea[illegible] managed to program the software to perform the calculations in 10 mi[illegible] utes. Getting down to the final 8-second program was difficult. "All 3[illegible] machines we use to run the chandelier have onboard computers th[illegible] cross-monitor one another constantly," Fisher says, adding that a sing[illegible] human operator is on hand to oversee the sequence. During the chand[illegible]







Fisher Technical modeled the domed structure and a simple line diagram of the chandelier's components in Navigator (above). The firm then fabricated the structure at its Las Vegas facility, before constructing it within the theater space at the Venetian (above left). The team called the central cavity, where the chandelier hides during act two, the "stovepipe" (left).

PHOTOGRAPHY: COURTESY FISHER TECHNICAL SERVICES

s routine, the software instantaneously and continuously calculates collision vectors on the wires, components, and audience. The pro- n's design accounts for losing one wire, too, though the loss of two s on a single component would require the chandelier to be shut n and automatically hauled up into the fly space above the dome. th two wires, it basically becomes a wrecking ball," Fisher says.

ing to earth

dless to say, with a 2,100-pound chandelier flying overhead, there were w safety concerns. "It's basically a 32-axis robot," Fisher says. "If one g fails, the whole thing stops because you can't get it out of the way." ough the program is accessed on a conventional computer, the software s on a QNX operating system across a simple Ethernet backbone. QNX ems are typically used for mission-critical schemes like heart monitors military operations. Local building officials weren't as concerned with programming as they were with ensuring the 20 tons of steel in the sup- structure could withstand the dynamics of the performance.

Each wire is attached to two winches, one that controls the ver- lift (up and down the track), and the other that modulates the zontal traverse (lengthening and shortening to allow the wide sweeps needed during the initial flying sequence). Each of the four chandelier components runs on four tracks. With over 1.5 miles of steel cable, 1,800 individual pulleys, 15,000 bolted connections, and 640 total motor horsepower, there were a multitude of potential failure points.

Fisher's team included a 12-to-1 safety factor in most aspects of the design, undertaking fatigue analysis on the steel structure and cables similar to what might be done for an aircraft. "The steel really left the world of scenery and became a Boeing," Fisher says, noting that his team tracked the lot numbers of steel from factory to installation to ensure quality. Once the steel was framed, with the track, winches, and pulleys in place, 500

NEEDLESS TO SAY, WITH A 2,100-POUND CHANDELIER FLYING OVERHEAD, THERE WERE A FEW SAFETY CONCERNS.

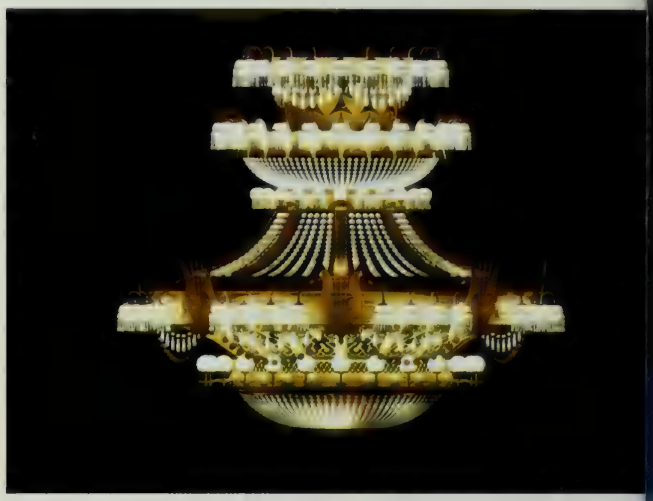
pounds of dead weight was placed on every access poi . Additionally, dual braking systems were installed—especially important given the dramatic drop at the end of the first act. A stunt chandelier, obviously much cruder than the final version, was installed and tested in place. Programmers had created routines for the chandelier, which mostly came off without a hitch.

The one snag was the transition from horizontal movement to the tight vertical position needed when the chandelier moves up into the dome (this occurs after the chandelier has ostensibly "fallen" on the audience). Rob Bissinger, with Rockwell Group, says the vertical portion of the track—the transition from the domed ribs to what the designers call the "stovepipe"—represented a difference of 2-to-1 for loading. The weight ratio of the pulleys then changes at that curved transition. "It's difficult, to say nothing of the fact that you have 16 lines that have to make a transition without hitting one another," Bissinger says. After some tweaking on the software, the slight bounce that had marked the shift disappeared.

Even chandeliers can be divas

With a 15-month schedule, Fisher's team designed and fabricated the chandelier at its 30,000-square-foot Vegas headquarters before installing it at the Venetian. The producers gave Fisher only five weeks before opening night to test the final installation. Justly proud of its creation, Fisher's team gave the chandelier a bit of a diva reputation after having programmed its performance to last 1 minute and 40 seconds, versus the length of 55 seconds warranted by *Phantom*'s overture. The chandelier's role was cut back.

Although Rockwell doesn't slouch on incorporating new technology into his practice—and the chandelier is certainly attracting its share of good press—he believes technology ultimately has to be embedded in craftsmanship and in service of a story or experience. The Rockwell Group is currently in the design phase on a park for another high-profile Ve project, the MGM City Center [RECORD, October 2006, page 272]. "The id of Vegas is in some ways better than the reality," he says. "It's a fantasti place with no context other than pleasure and entertainment." ■



The four components of the chandelier nest inside one another.

AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- **Read the article "The Phantom Menace" using the learning objectives provided.**
- **Complete the questions below, then fill in your answers (page 171).**
- **Fill out and submit the AIA/CES education reporting form (page 171) or download the form at archrecord.construction.com to receive one AIA learning unit.**

QUESTIONS

1. Rockwell says that the goal of permanence can lead to what kind of approach?
- **a.** not serious
- **b.** playful
- **c.** non-risk-taking
- **d.** theatrical

2. Rockwell believes that theatrical experiences draw a lot of their power from their fleeting qualities, which are tied to what?
- **a.** architecture
- **b.** humanity
- **c.** imagination
- **d.** culture

3. The Venetian theater was built in the shell of what building?
- **a.** Las Vegas Guggenheim
- **b.** Caesar's Palace
- **c.** Paris Opera House
- **d.** Cirque du Soleil

4. To simulate its falling, the chandelier is split into four components in which configuration?
- **a.** each hung by one steel cable
- **b.** all four line up vertically, appearing to be one unit
- **c.** each hung by four steel cables
- **d.** both b and c

5. The Vegas chandelier is composed of which elements?
- **a.** three main tiers of lights
- **b.** original Paris Opera House elements
- **c.** gold leaf
- **d.** French crystal

6. The chandelier is operated by how many machines with onboard computers?
- **a.** 8
- **b.** 16
- **c.** 24
- **d.** 32

7. During the chandelier's routine, the software calculates anticollision vectors on which?
- **a.** wires
- **b.** components
- **c.** audience
- **d.** all of the above

8. The chandelier's computer software runs on an operating system typically used for which?
- **a.** 3D modeling
- **b.** spacecraft
- **c.** heart monitors
- **d.** power plants

9. The fatigue analysis performed on the steel structure and cables was similar to what might be done for which?
- **a.** submarines
- **b.** aircraft
- **c.** satellites
- **d.** 50-story buildings

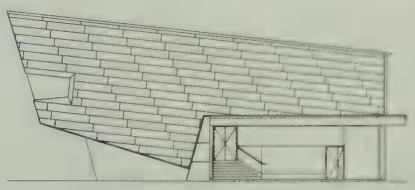
10. The chandelier achieved a diva reputation for which aspect?
- **a.** its flying across the stage
- **b.** its free fall to 15 feet above the theater floor
- **c.** its performance of 1 minute 40 seconds
- **d.** its special lighting effects



New Lecture Theatre, Victoria University, Werribee Campus, Werribee, Victoria, Australia; Architect: Michael McKenna Pty Ltd, Melbourne, Australia

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Richard A. Cook and Robert T. Fox, Jr., partners of Cook+Fox Architects, on the site of the Bank of America Tower at One Bryant Park, developed by Bank of America and The Durst Organization.

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Tech Briefs

LEED takes aim at **the built environment's role in climate change** • rtual **architecture finds a home on the Internet** in two rapidly expanding Web-site environments

een Building Council hones rating system as a tool for combating carbon emissions

n U.S. Green Building Council ual conference seems to mark lestone in the development of organization's Leadership in gy and Environmental Design g system, known as LEED. A ago in Atlanta, the big news the move away from cumber- e project documentation ers toward a streamlined, erless submittal process. At the l recent Greenbuild conference, ncil officials introduced a series oposed changes aimed at miti- ng the built environment's role imate change.

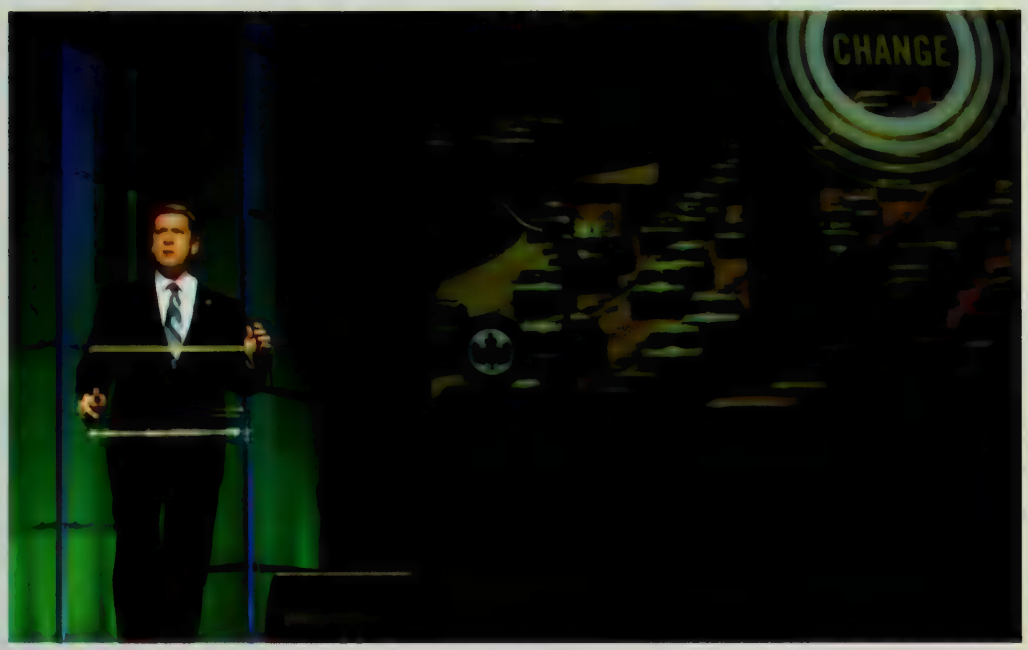
"The USGBC, through the LEED g system, is capable of, and onsible for, making substantial ovements" in greenhouse gas ssion from buildings, said council ident and C.E.O. Rick Fedrizzi, at November 15 opening plenary he 2006 three-day conference enver. Starting early in 2007, council will require that all new mercial projects seeking LEED fication reduce carbon dioxide) emissions by 50 percent over ent levels.

To realize this goal, projects will to achieve at least two of the sible 10 energy and optimization ts outlined in the current ver- of the rating system. "We are ntially saying that you can't do ED building without energy effi- cy," says Scot Horst, chair of the BC committee responsible for ing the rating system and pres- t of the 7Group, a green building sultant. At RECORD press time, a t of the proposed change was to eleased for public comment by January.

The committee is working to gn "carbon benefits" to credits ss all LEED point categories, uding sustainable sites, water iency, materials and resources, and indoor environmental quality. "Some benefits are more complex to quantify than others," says Horst, pointing to the challenges of measuring the carbon associated with occupants' transportation to and from buildings or the embodied energy in materials. "As a country, we haven't dedicated ourselves to collecting that kind of data," he says.

The council also plans to institute a CO_2 trading program. In addition to studying the metrics that would be used to measure offsets for buildings, the USGBC is examining other issues relating to carbon trading protocol, such as whether credits would accrue to the building owner or the utility, explains Michelle Moore, USGBC spokesperson. "We are concerned that the credits represent high-quality offsets and real reductions," she says.

As part of this effort to reduce the green house gas emissions associated with buildings, the USGBC, along with the American Society of Heating, Refrigerating and Air-Conditioning Engineers, and several other groups, adopted the 2030 Challenge at Greenbuild. The initiative, launched in January 2006, and previously adopted by the American Institute of Architects and the U.S. Conference of Mayors, calls for all new buildings and major renovation projects to reduce greenhouse-gas-emitting energy consumption by 50 percent immediately. The challenge calls for gradually increasing performance targets so that all new buildings would be carbon neutral by 2030.





Several initiatives targeting greenhouse gases were announced by USGBC President Rick Fedrizzi as part of Greenbuild's opening plenary (above) at Denver's Colorado Convention Center (left).

Also in Denver, the council and the software company Autodesk announced plans to explore ways of integrating building information modeling tools into LEED. According to Phil Bernstein, FAIA, Autodesk vice president, the initiative will "democratize and make more accessible sustainable design tools," ultimately reducing the causes of climate change by increasing the number of green buildings that emit less CO_2 *—Jean Gonchar, AIA*

Tech Briefs

Second Life and *Google Earth* are transforming the idea of architectural collaboration

Had Jane Jacobs lived to see *Second Life* (secondlife.com), the urban advocate might have been surprised to find that a Web site offers the most promise for gauging public opinion of proposed architecture.

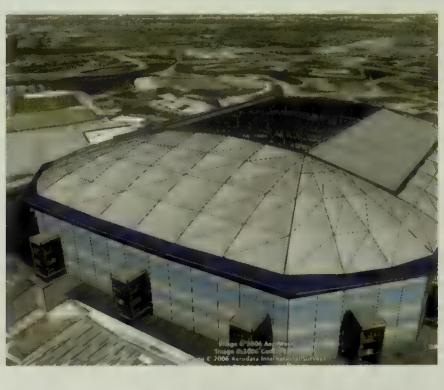
Second Life, which is a kind of synthesis of the games *SimCity* and *The Sims*, allows registered users to exist within a rapidly developing alternative, Web-based world. Anyone can design buildings within the site, which makes it especially appealing for architects looking for feedback on buildings long before construction begins.

Since fall of 2005, Terry Beaubois, AIA, has taught a course using *Second Life* at the Montana State University School of Architecture. "It's an immersive 3D environment where I can visit with students and monitor their projects," Beaubois says. "It doesn't replace CAD, but it's a supplement for our technology that helps us learn to collaborate." Beaubois often teaches remotely from his base in California, but he facilitates Montana State's Creative Research Lab. He says the lab's mission is to research the application of technologies in CAD, *Google Earth*/*SketchUp*, and *Second Life* to architectural education and architectural practice.

Unlike *Google Earth*, which allows users to import digital architectural models into a map of the real world, *Second Life* is composed of a mainland and private islands. Users create an avatar to be their virtual representative. Every user—and there are currently more than 2 million registered on the site—accesses the same world, so every avatar you encounter in *Second Life* is the digital face of a live user.

Second Life has an internal building system, which uses an interface that lets you manipulate geometric shapes to form more complex objects. Using *Second Life*'s group creation platform, Beaubois and his students can work in the same interface to manipulate geometric shapes and link them to make a variety of structures, such as a gallery space in which to show their work. Beaubois also finds it a good tool for showing students how building parts fit together. "During one class period, a student built a design and the other students went into the program to test it out," he says. "They could instantly see where the trouble spots were, and it could be modified on the spot."





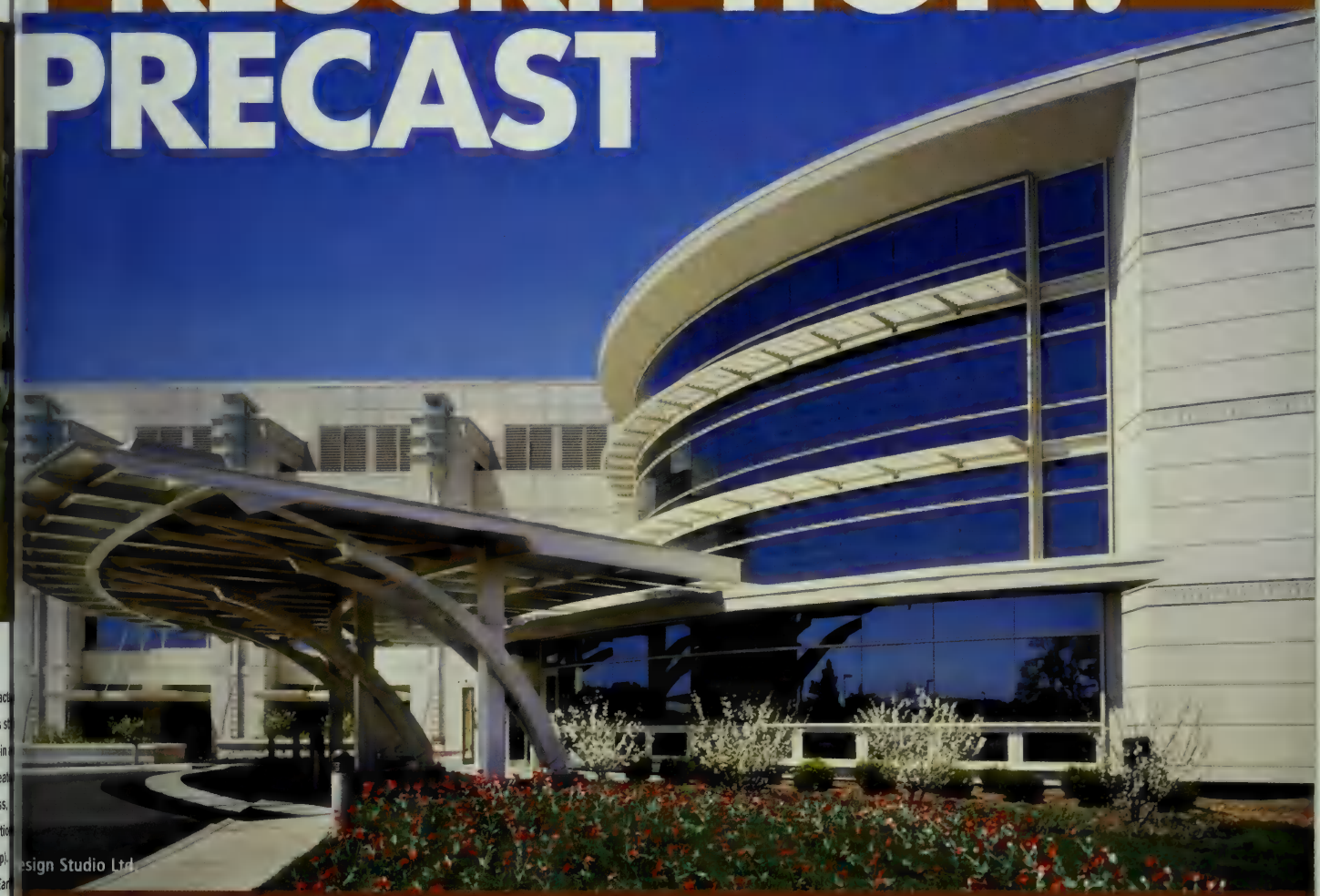
Terry Beaubois's *Second Life* charac Tab Scott, reviews s dent design work in on-line gallery as part of his class, "Digital Collaborati for Architects" (top). Users of *Google Ea* (left) are rapidly de oping 3D versions o the real world.

Modeling programs like AutoDesk's Revit and 3ds Max have helped to bring architecture into the virtual realm. Google's recent acquisition of *SketchUp* suggests that more companies will become interested in these tools as they become more central to architects' business. John Bacus, a Boulder, Colorado–based product manager at *SketchUp*, says it's hard to keep up with all of the projects and modeling of real cities being loaded into *Google Earth*. "We don't edit the models in any way," Bacus says. "They can be loaded anonymously and anyone can review and rate them."

Bacus says you can load multiple versions of a building intended for a single site. The public could then vote on the best version. "The public tends to trust 3D models more than a simple rendering," he says. As the world of virtual architecture develops, we may see architects lead clients on to through a 3D-modeled *Google Earth* with a view of the firm's buildings. In *Second Life*, multina tional firms could create meetin rooms to foster interoffice collab ration. Already in *Second Life*, virtual lectures have attracted architects from all over the worl

Christopher Kieran

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Residential

Living large in small spaces: Modest-scale houses reflect human-scale values

BRIEFS

The housing market continues to weaken, with leading construction companies reporting lower earnings, and the U.S. Commerce Department noting a 3.2 percent decrease in the sale of new single-family homes, for the month of October 2006. Yet the National Association of Home Builders' president David Pressly says that the market correction is largely behind us, and the economy is stabilizing. Equally upbeat, *BusinessWeek* tells us interest rates will remain at historically low levels, with home buyers seeing considerable opportunities in 2007. While new home prices continue to fall in 2007, light shines at the end of the tunnel, with 2009 primed for a comeback.

Prefab houses are moving up in the world, with some now being designed for placement atop existing flat-topped buildings. For renters who move frequently, such rooftop living holds tremendous appeal. The space-saving, 387-square-foot Hanse Colani Rotor House features a cylinder that contains a kitchen, bath, and bedroom and rotates to the left and right of the central living room. Werner Aisslinger's Loftcube is light enough to be transported by helicopter. BlueSkyMod, an ecofriendly design by Todd Saunders, uses mostly local and recycled materials as well as solar panels, composting toilets, and other off-the-grid technologies. See www.blueskymod.com and www.loftcube.net.

The "Zero-Yen House" is what Japanese artist and architect Kyohei Sakaguchi calls houses built from found objects in the shantytowns of Tokyo, Osaka, and Nagoya. Sakaguchi stresses the ingenuity of the illegal dwellings, which incorporate disassembly into their design so they can be quickly moved. An exhibition at the Vancouver Art Gallery included a replica of a Tokyo Zero-Yen House built by a former camera engineer who designed an electrical system powered by a small solar panel. Sakaguchi believes aspects of the house's design represent possibilities for a modular architecture based on the dimensions of the human body. Visit www.vanartgallery.bc.ca.

The Katrina Cottage, a house-building kit by designer Marianne Cusato [RECORD November 2006, page 30], won the 2006 Cooper-Hewitt People's Design Award. The kit goes on sale later this month at Lowe's stores in Mississippi and Louisiana. The design is popular for its traditional style and flexibility: Because it's a kit and not prefabricated, its design is not predicated on fitting onto a truck. Over 10,000 people have already expressed interest in the kit for use along the Gulf Coast and for second homes. Visit www.cusatocottages.com.

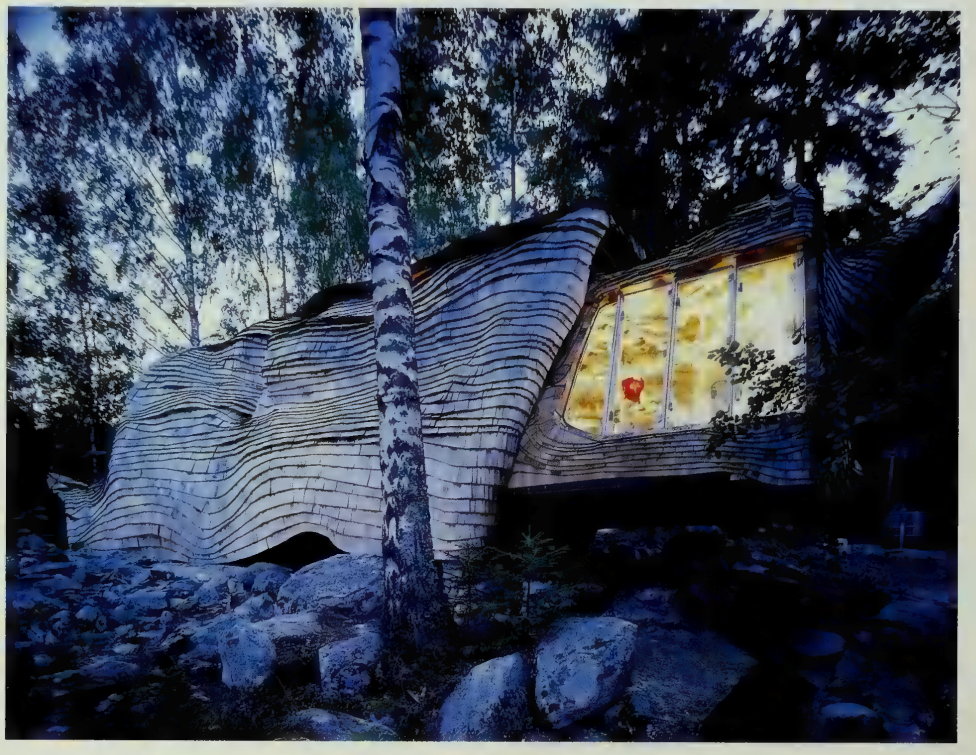
Christopher L. Kieran

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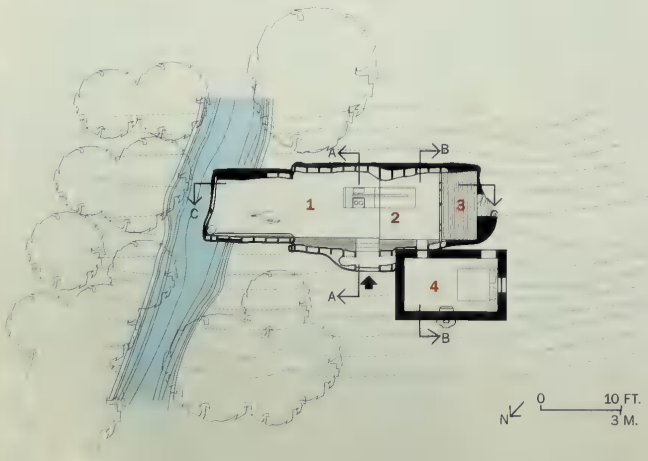
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As the epithet *McMansion* suggests, houses have been supersized. The square footage of the average American house rose from about 1,500 square feet in 1970 to more than 2,300 square feet in 2001. Yet from 2001 to 2004, this growth slowed, suggesting that the size of the average house stabilized, says Gopal Ahlawalia, vice president at the National Association of Home Builders. The appeal of big houses may be waning. Sarah Susanka, FAIA, author of *The Not So Big House* series of books, says that good architects know the importance of human scale, but it takes a while for the society in general to catch up. Ecoconscious consumers reject big houses with their burdening energy costs. Younger buyers steeped in cool design aren't going to live in McMansions; they want their homes to reflect their values. Susanka says the Y Generation emphasizes the value of function: "If you don't use it, don't build it," and livability, which makes a house a home. Herein find four examples of residences fit for the modern "not so big" mindset. *Jane F. Kolleeny*





The incredible shrinking house: 24H-architecture's **Dragspelhuset** expands and contracts on demand



1. *Living/dining, with extension deployed*
2. *Kitchen*
3. *Porch*
4. *Bedroom*

By Beth Broome

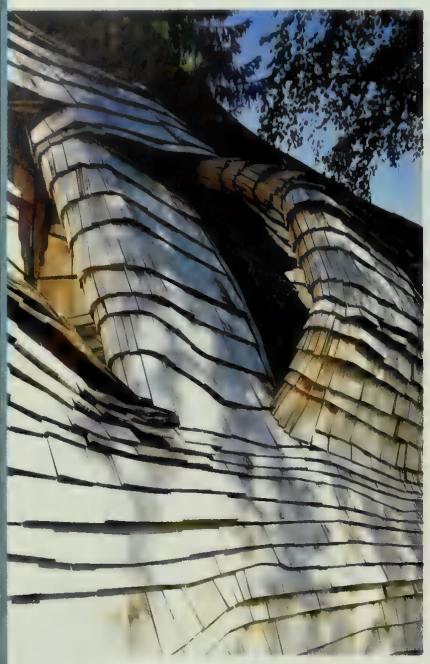
Locals around the Swedish nature reserve of Glaskogen affect ately dubbed this quirky little expandable house in its mids "Dragspelhuset," or accordion house. But the owners, E Zeisser and Maartje Lammers of the Dutch firm 24H-archi ture in Rotterdam, liken the building in its winter incarnation, whe movable extension is stowed inside the main body of the structure, tightly sealed cocoon with a double skin that protects against the c Come spring—when the extension is deployed—it becomes a butt with wings unfurled to provide extra shelter on rainy days.

The couple, hoping to give their young daughter an experi like Zeisser's childhood summers spent in Sweden, embarked on a q for a vacation retreat from Holland's relative congestion. Their se ended with an odd property that no one wanted—a 19th-century fis shack isolated in a pine and birch wood on the banks of Lake Ovre

Project: *Dragspelhuset, Arjang, Sweden*
Architect: *24H-architecture—Maartje Lammers and Boris Zeisser, project architects; Olav Bruin, Jeroen ter Haar, Sabrina Kers, Fieke Poelman, project team*
Engineer: *ABT*



The extension sits on wheels that slide along two steel rails as it is pulled out manually by means of a pulley system. The whole process takes less than a minute, says Zeisser.





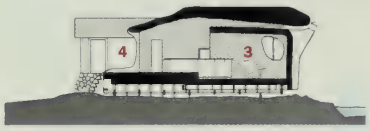


SECTION A-A

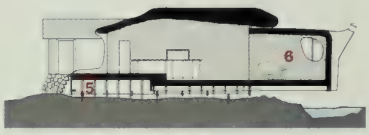
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SECTION B-B



SECTION C-C



SECTION C-C EXTENSION DEPLOYED

1. *Living/dining*
2. *Bedroom with child's sleeping loft, in original structure*
3. *Extension stowed*
4. *Original structure*
5. *Porch*
6. *Extension deployed*

Dragspelhuset, whe viewed from the lak appears to be a big rock. Though inte- grated into its site, the house does not attempt to hide, in t case among the red pitched-roof cottage typical of the region







Fanciful lighting by Ingo Maurer accents plaster and birch lattice walls. The extension's interior is completely cloaked in reindeer pelts—a tribute to the Sami people in the Arctic Circle, whose subsistence depends on the animal.

ough the shack was "barely one room," says Zeisser, its lakeside location de it very appealing. Because Swedish regulations prohibit new waternt construction, the hut presented a rare opportunity. Despite trictions that would limit the size of an addition to about 300 square t, the architects purchased the unusual property.

That the house sat alongside a stream added to the site's allure. n an enormous Frank Lloyd Wright fan," says Zeisser. "I've been to lingwater five or six times, and that's what I wanted—to have my house r the stream." But the property line lay smack in the middle of the ek, and yet another regulation dictated that development stay 15 feet ar of the property line. Still, the architects were not deterred.

To skirt both the maximum-square-foot and the property-line es with one gesture, the architects came up with the idea of a movable ension that sits on wheels that roll along two steel rails as it is pulled out nually with a pulley system. This way, the house would only sometimes ak the rules by just a little bit. "This is a typical Dutch attitude," says sser. "Unlike in Germany, where a rule is a rule, we look for the edge of rule and see how far we can bend it without quite breaking it."

An amorphous pod clad in western red cedar shakes, agspelhuset, when viewed from the lake, appears to be a big rock. void of luxury, the house, which the architects built themselves with help from friends over the course of four summers, has no electricity, heat, phone, or running water. At about 775 square feet (with the extension deployed), it consists of an open living/dining/kitchen area, with one bedroom and child's sleeping loft occupying the old shack, which is connected to the new structure.

Amenities include solar panels for powering lights, a propane cooktop, a wood stove for heat, a hose upstream for collecting water, and a compostable toilet in a nearby outhouse. And this is just how the owners like it. "The house awakens all the senses," says Zeisser. The stream, which runs next to and under the house, is a constant presence, and views of the lake and the forest, uninterrupted by man-made structures, anchor it in the landscape. This connection to the outdoors, combined with just enough creature comforts, give Dragspelhuset's owners the rare and awe-inspiring experience of living with nature—exactly what they were hoping to pass on to the next generation. ■

Sources

Shingles: *Theo Ott GmbH*
Glazing: *Metaglas B.V.*
Hardware: *Post en Eger*
Lighting: *Ingo Maurer*

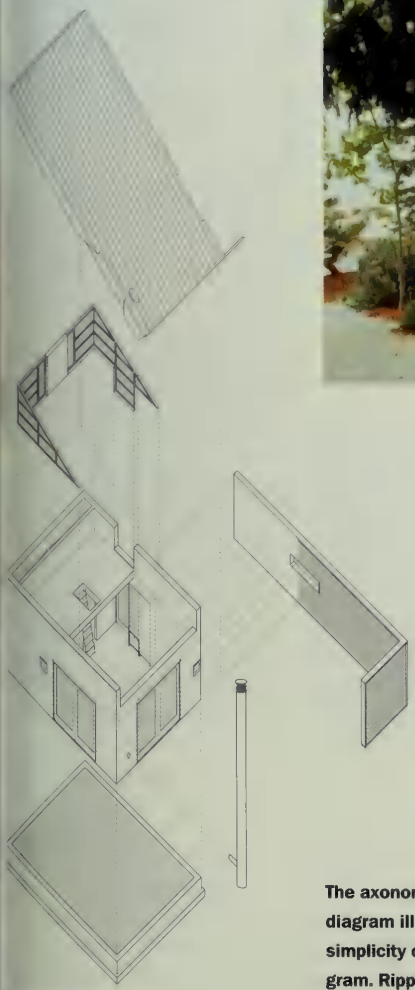
For more information on this project, go to Residential at **archrecord.construction.com**.



A ship's ladder ascends to the 128-square-foot sleeping loft on the north side, tucked under the kitchen and bath on the main floor.

'andeventer + Carlander Architects' **Camano Cabin** hows that good things can come in small packages





XONOMETRIC

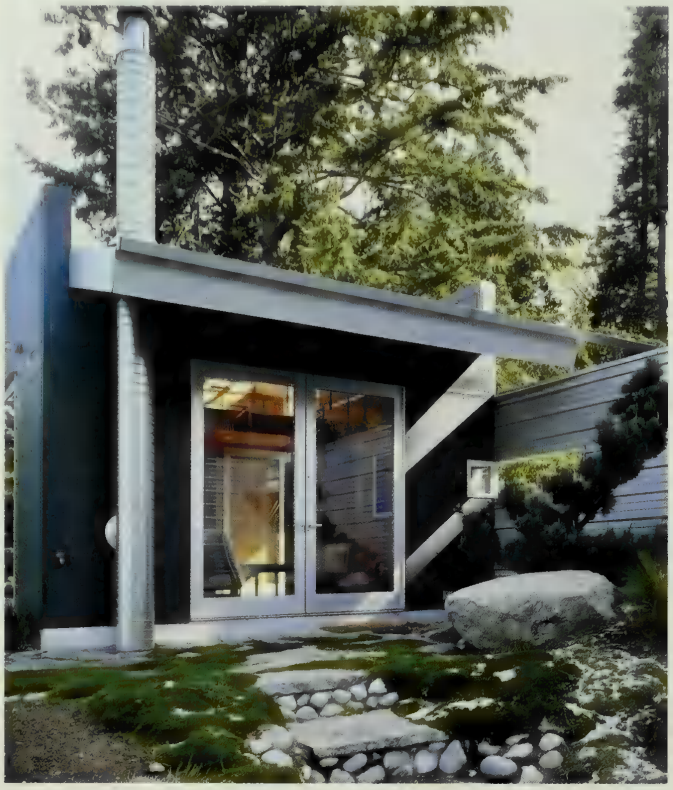
The axonometric diagram illustrates the simplicity of the program. Ripped-steel siding covers portions of the exterior. The garden wall shields the patio from uphill neighbors and extends the house into the landscape (top).

By Jane F. Kolleeny

Roughly 50 miles northeast of Seattle, bucolic Camano Island attracts weekenders seeking respite from hurried city life. With 52 miles of shoreline and ample opportunities for waterfront living, the island inspired a Seattle couple to purchase a 2-acre site on a high bluff with views across Saratoga Passage to Whidbey Island and the Olympic Mountains. Working within the constraints of a modest budget, the owners took gradual steps toward fulfilling their dream of creating a weekend retreat cabin. First they cut a road through the property leading to a low area a few hundred feet from the edge of a steep cliff, which seemed an obvious place to position the house. With the equipment already on-site, they poured a simple concrete foundation to prepare for future construction. The following year they created a garden. Two years later, the owners finally began to build. Both the garden and foundation became primary organizing elements for Camano Cabin, designed by Tim Carlander of Vandeventer + Carlander Architects. In the design, the architects strove to maximize both privacy and daylight, while siting the cabin so it would take advantage of the special benefits of island living, which include watching eagles and great blue herons, as well as glorious sunsets.

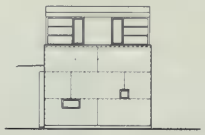
"The project needed to address specific site constraints—the garden to the south being one, and the uphill neighbors to the south and north being another," explains Carlander. "Therefore, we included a garden wall covered with ribbed-metal panels, both for privacy and to extend the building into the landscape. The project would not be balanced without the garden wall to anchor it to the site."

Project: *Camano Cabin, Camano Island, Washington*
Architects: *Vandeventer + Carlander Architects—Tim Carlander, principal in charge and designer*
Engineers: *Swenson Say Fagét*



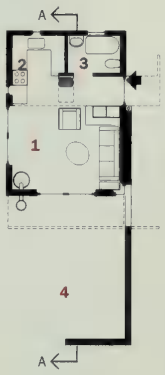


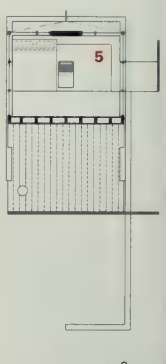
1. *Living room*
2. *Kitchen*
3. *Bathroom*
4. *Garden*
5. *Loft*

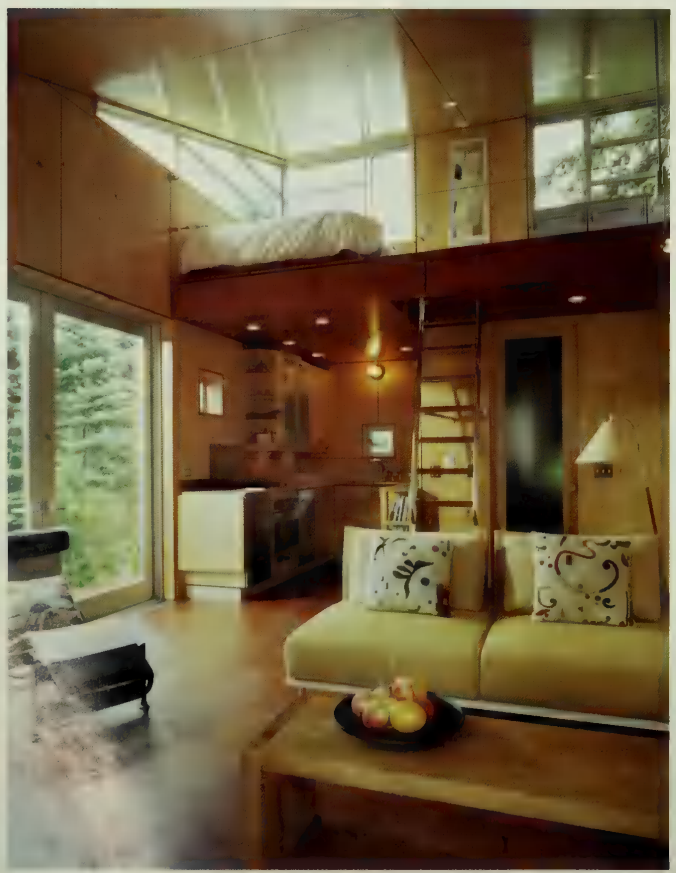




The garden uses indigenous evergreens and mosses and an arrangement of rocks left from excavation (left). The loft enjoys floor-to-ceiling glass walls on three sides (below).







The 352-square-foot, wood-framed cabin consists of a simple cube with a diagonal metal roof jutting out and creating a protective overhang on the south, garden-facing side. The living room features two sets of French doors: one opening south to the garden, the other to the west onto a lawn that extends to the edge of the bluff. "In the summer, you can open the doors and the house becomes a covered pavilion," says Carlander.

The choice of materials and detailing in the cabin's interior echoes the modern aesthetic of the exterior. The owners, acting as their own general contractor and finish carpenters, used IKEA kitchen cabinets, and installed the insulation plumbing themselves. A Le Corbusier chaise longue and MI dishwasher count among their splurges. Walls and ceiling are lined in inexpensive maple and cherry plywood; the panels have caulked reveals to mimic the fiber cement panel details used on the exterior. A wood stove provides warmth, as do radiant heating elements in the stained concrete floor.

While the architect appreciated the task of creating a "not so small house" out of one room, the owners learned to make sacrifices and live without extras. "Tight space dictated that a washer/dryer be located in the pump house, and limited closets caused the owners to build a storage unit up the driveway," said firm partner Bill Vandeventer. Maximizing all available space and using extensive glazing to mitigate any feeling of confinement in the small building, the designers created a little architectural gem, which in the end allowed them to live much larger then the modest footprint would suggest. ■

Sources

Exterior cladding: *Hardi Panel; Zincalume*

Roofing: *Torchdown*

Cabinets: *IKEA*

Paints: *Benjamin Moore*

Furniture: *Cassina Corbusier chaise longue*

For more information on this project, go to Residential at **archrecord.construction.com**

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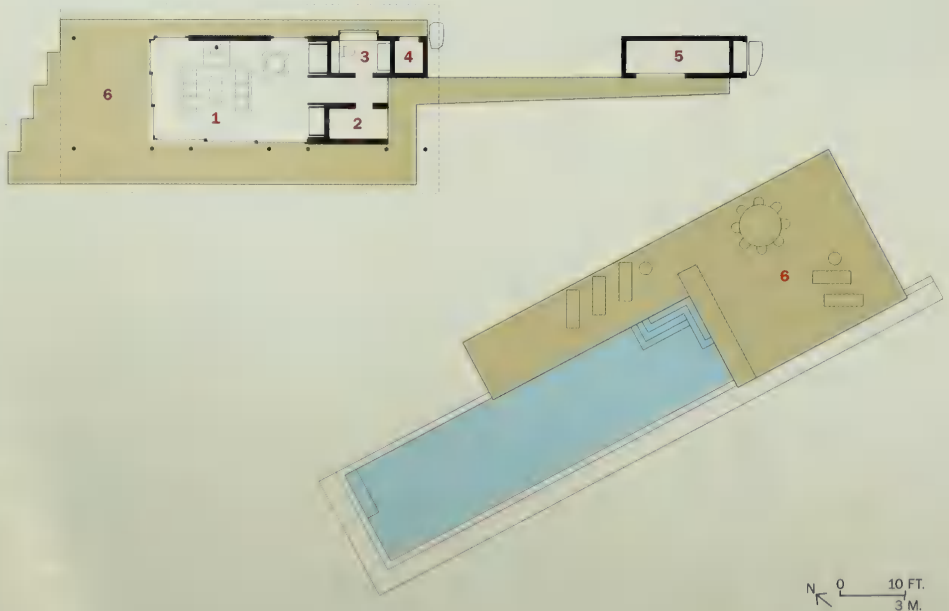
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1. *Living room*
2. *Shower*
3. *Bath/changing*
4. *Mechanical*
5. *Pool equipment*
6. *Deck*

Surrounded by 120 acres of aspen and cottonwood forest, the pavilion and 20-meter lap pool were designed to mediate the clearing sited among the woods, a pasture, and the main house, and provide panoramic views of the nearby Saddle Mountains.



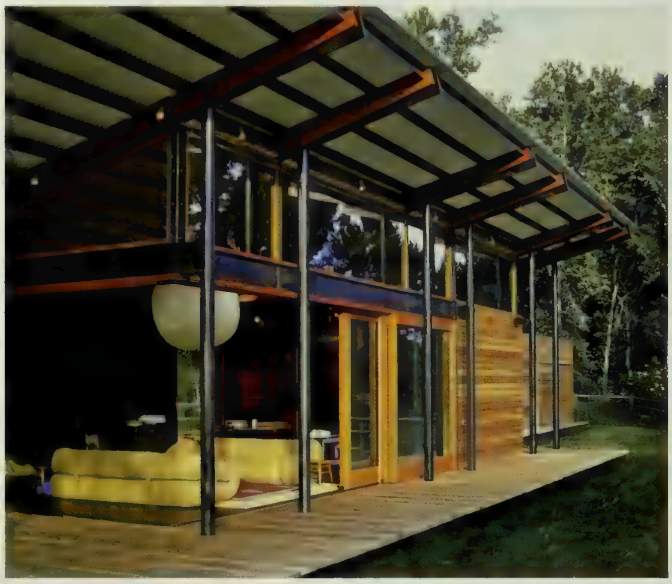
ake/Flato Architects situated **Hailey Pavilion** in the erfect site, then adapted it to a new one

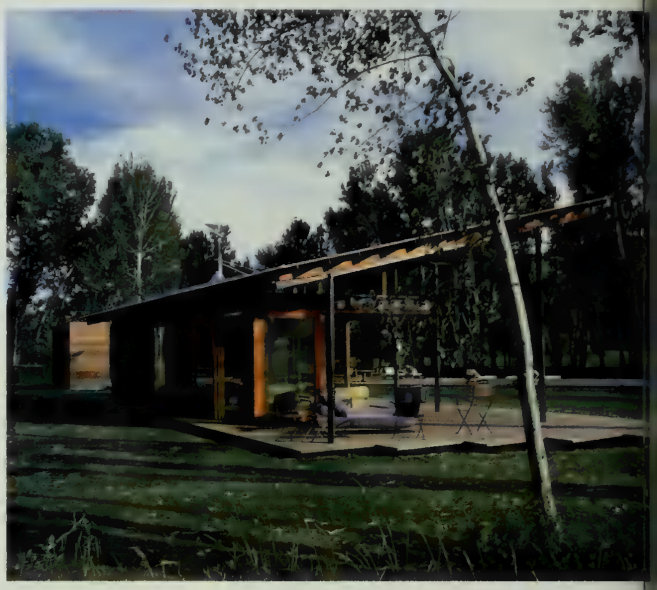
Ingrid Spencer

You'd think that a firm like San Antonio–based Lake/Flato Architects, winners of the AIA's Firm of the Year Award in 2004, might not be interested in designing a pool house with a mere 646 square feet of air-conditioned space (1,780 luding decks) on a 120-acre ranch, especially as far away from the m's Texas base as Hailey, Idaho. Not so. "We're interested in projects at different scales," says Lake/Flato associate partner Brian Korte, AIA. ometimes the quick turnaround and the need for efficiency of space in mall project make it the most challenging and interesting."

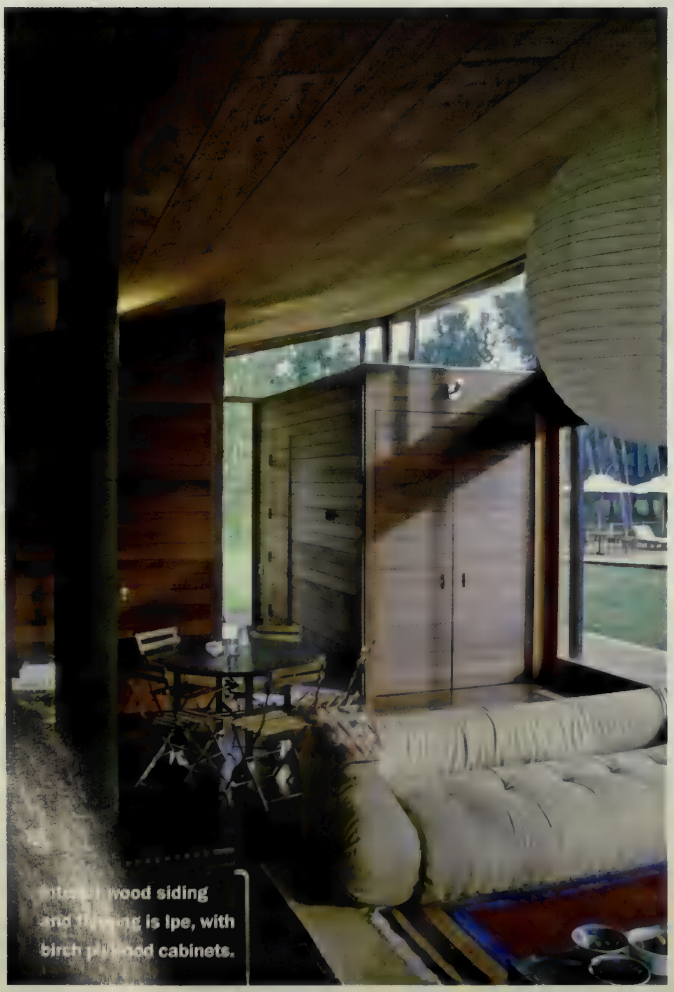
For Korte, who served as project architect on the tiny pavil-n, the key challenges were making the most out of materials and a fficult site. Fortunately, Lake/Flato has made its name designing althy, sustainable buildings that respond to their place. The architects refully set the structure and 20-meter lap pool on a flood plain nes-d among woods and near the ranch's main house and horse pasture. But then they were thrown for a loop. The East Coast–based clients, who spend several months a year enjoying the Idaho lifestyle, decided to move—literally—to greener pastures 13 miles away and wanted to take their pavilion with them. "It wasn't meant to be moved," says Korte. "But we worked with our engineer to come up with a solution to lift the pavilion structure off the existing foundation, cutting the steel beams and wood framing free from the concrete stem walls. The tricky part was securing it onto its new foundation, since the seismic hold-downs were embedded in the original concrete stem walls. Once we cut free the structure above, coming up with a way to achieve the same

Project: *Hailey Pavilion, Hailey, Idaho*
Architect: *Lake/Flato Architects—Brian Korte AIA, project architect; Jay Pigford AIA, project captain; Vicki Yuan, team*
Engineer: *Datum Engineering*
General contractor: *Bishop Builders*





Simple materials and finishes recall local farm structures. Glass walls slide and fold away to create an open-air shed during summer (top right).



Interior wood siding and flooring is Ipe, with birch plywood cabinets.

structural detail without tearing up the wall finishes was tough. But in the end, the result was unintrusive."

The original pavilion contained living, sleeping, and bathing areas, as well as a kitchen/bar, storage, and pool mechanicals. The entire building with its surrounding decks moved to the new site, while the pool, its mechanicals, and its adjoining deck stayed. Winter-tight and able to withstand the 125-pound snow loads that are common in Hailey for up to six months of the year, the pavilion has an insulated, cantilevered shed roof, covered with a layer of corrugated aluminum. Lighter at the edges, the roof provides deep overhangs that shade the outdoor decks in the summer. Inside, cedar planks clad the plywood ceiling. While not anticipating that the structure would be moved, Korte nevertheless designed the building to sit lightly on the land, floating on a rigid steel frame system composed of oiled-steel pipe columns, alternating from 6 to 12 feet apart, and composite rafter flitches clad in reclaimed Douglas fir. Organized like a modern pole barn, the pavilion has Ipe-wood-clad volumes for the bathroom, steam-shower area, and storage set between structural bays. The multifunctional living area opens to the landscape, as floor-to-ceiling glass doors edged in vertical-grain Douglas fir slide open, making the covered Ipe deck part of the communal space. The steam shower, in its Ipe-clad volume with an acrylic-paneled ceiling, also opens to the outside. In cold weather, the pavilion can be closed airtight. A wood-burning stove makes it a cozy winter escape.

"The whole process has been an eye-opener for us," says Korte. "It's made us think about modular buildings, and how a small structure can adapt to various sites. There's definitely a bigger story to tell!" ■

Sources

Metal roofing: *Galvalume*
Glazing: *Cardinal Glass*
Locksets: *Valli and Valli; Henderson*
Hinges: *Hager*
Cabinet hardware: *Blum; Hafele*
Paint: *Devoe*
Lighting: *BK Lighting/RAB*
Wood-burning stove: *RAIS*

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1. *Guest bedroom*
2. *Bath*
3. *Office*
4. *Renovated master bathroom*
5. *Library*
6. *Studio*
7. *Deck*

Safdie Rabines Architects' **Artist Bridge Studio** deftly spans the gap between man and nature

By Jane F. Kolleeny

Project: *Artist Bridge Studio, San Diego*
Architect: *Safdie Rabines Architects—Ricardo Rabines and Taal Safdie, principal designers; Charles Crawford, project architect*
Landscape: *Leslie Ryan*
General contractor: *Cavanaugh Construction*

Sources:
Curtain wall: *Trespa*
Concrete: *F.J. Brawley Concrete*
Lighting: *Tazz Lighting; Lithonia*
Skylights: *Velux*
Windows/doors: *Fleetwood Windows & Doors*
Locksets/hinges: *EMTEK*
Plumbing: *Grohe; Kohler*
Shades: *Smith Shades, Sunscreen Shade*

While downtown San Diego occupies a relatively flat pu hugging the Big Bay, the rest of the city consists primari canyons that separate mesas and create small pocke desert landscape for the urban fabric to back up to and k inspiration from. In such a place, one barely notices an arroyo that insp a modest intervention to an existing residence northeast of town. Refe to as the "Artist Bridge Studio," the project was designed by Safdie Rab Architects as an expansion of an artist couple's small residence. While owners appreciate small spaces, they needed more room; retiring from t day jobs as university professors and spending more time at home wor at their respective crafts—he a writer, she an installation artist—n needed their home to respond to their changing lifestyle.





terials used in the dition connect it to main house and land. The chocolate wn siding on the ginal house contin- s as bands around addition. Trespa nels sheath the non-

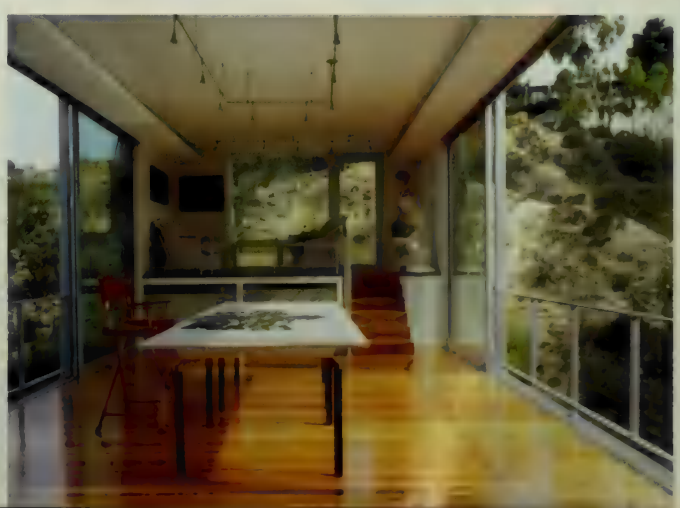
Built in 1964, the original house was dark and faced inward. novations by Safdie Rabines in 1993 turned the focus outward, maxi- zing distant ocean and nearby desert views. While this earlier ervention opened the building's exterior walls, the 1,200-square-foot dition completed this year added a deck, guest bedroom/bath, library, ice, and artist studio, the last of which occupies the "bridge" that hangs er the V-shaped gully. The project enlivens a neglected backyard, taking es from the environment: "We wanted to frame the view of the hillside which the colors of sage and sandstone are dramatic. The terrace at e end of the bridge allows people to experience this wilder landscape," /s Taal Safdie, who, along with her husband and partner, Ricardo bines, designed the house.

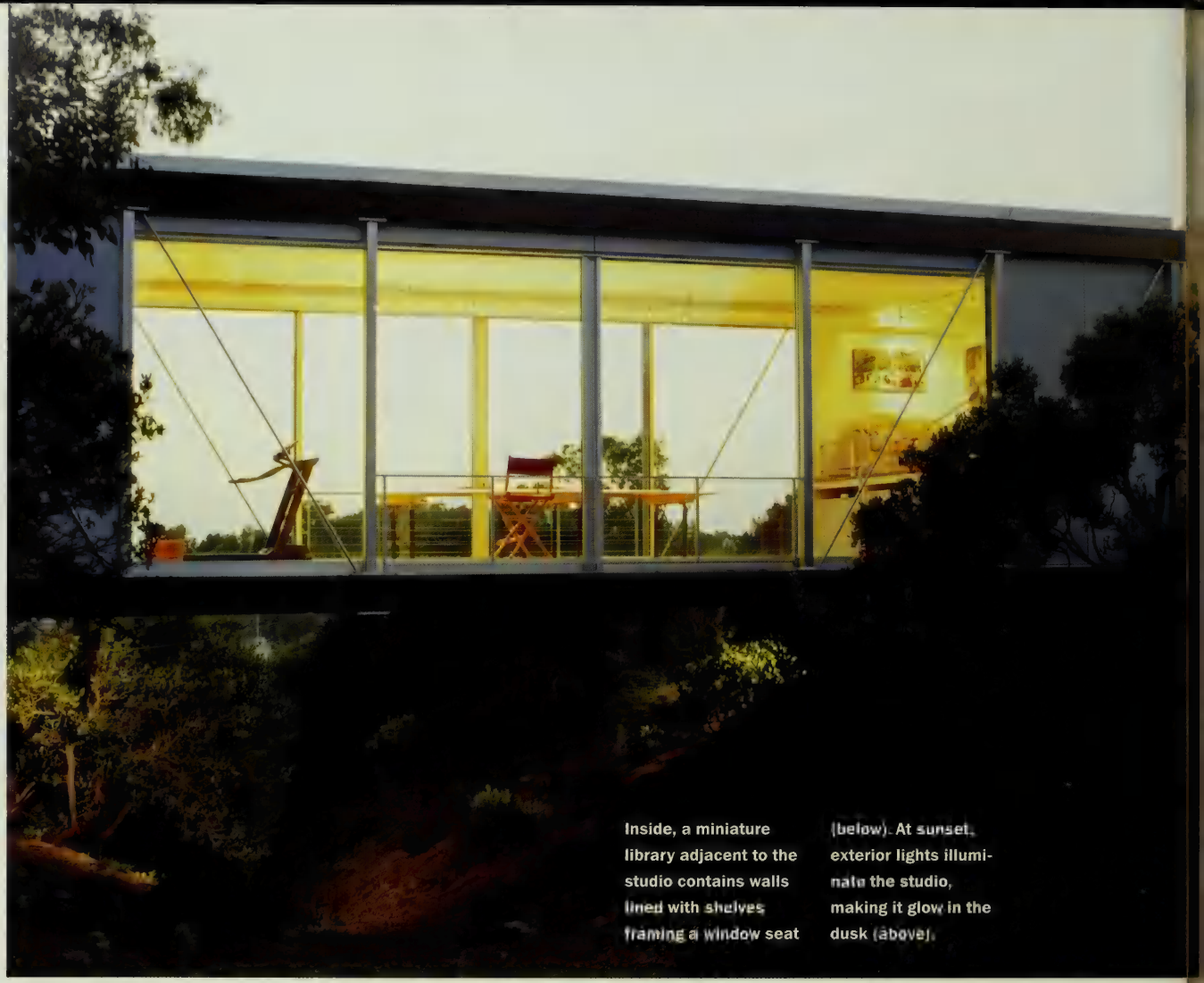
While villa-style McMansions creep up the slope that leads to the 3-acre hilltop property, mature trees and arid native plantings help protect the owner's privacy. Garden sculpture peeks out from behind the Mexican lavender, monkey trees, and manzanita that frame the winding pathway. As one arrives on the patio outside the house, chimes ring in the gentle Santa Ana winds.

Entering from the patio into the vestibule/living room portion of the original house, one moves toward the back and encounters the addition—a guest bedroom and library on the left; an office and bath on the right. Then one enters the artist studio proper. It comes as a surprise to look

The artist studio proper (this page), suspended over the small canyon, is all glass and light.







Inside, a miniature library adjacent to the studio contains walls lined with shelves framing a window seat (below). At sunset, exterior lights illuminate the studio, making it glow in the dusk (above).

down and realize the space is suspended above the tiny canyon, supported on a pair of concrete piers with two trusses, at top and bottom, made of glued-laminated timber chords with steel cross members. On the north side of the studio, a wooden deck extends the space outdoors.

"We investigated doing a freestanding structure, but due to zoning regulations, the size and use would have been limited. We therefore chose to attach the studio to the house, but give it its own identity," says Rabines. The bridge emerged as a response to the site, allowing minimal disturbance to the tiny plot of buildable land, while providing the opportunity to experience the canyon from the best of all possible locations: in and above it. "I like the idea of floating over the canyon and crossing to the other side. It's inspiring to feel like you are suspended. When the doors are open, you are on a bridge, capturing the ocean breezes," says Rabines.

The owners wanted an addition that would maintain the intimacy of their hilltop abode. A family of deer visit frequently, lingering in the bottom of the canyon. The owners believe this is testament to the success of the project, a true intermingling of natural habitat with urban development. ■



For more information on this project, go to Residential at **archrecord.construction.com**.

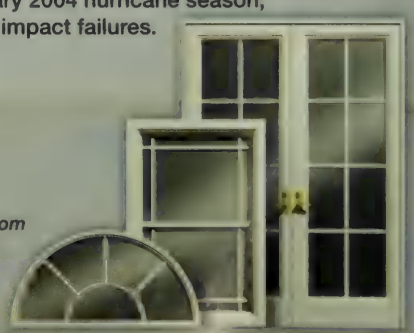
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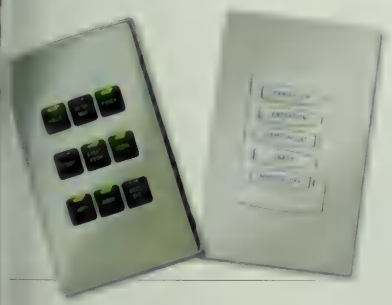
Residential Products

EDIA Review

As technology branches out into every part of the home, the CEDIA Expo is becoming as much about the integration of design and electronics as it is a showcase for gadgets. Here are standouts from last year's show in Denver. *Rebecca Day*

Working with natural light

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on from a separate sensor and sets lighting
oads according to preset levels determined by
he amount of ambient light in the room. It works
y dimming or turning off its controlled loads
hen there is enough sunlight and bringing up
evels when daylight dims. In addition to helping
onserve energy, the keypad offers a smooth
ransition to artificial light during twilight. LiteTouch,
alt Lake City. www.litetouch.com **CIRCLE 201**



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h-mount lighting styles from companies includ-
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if. www.sonance.com **CIRCLE 203**





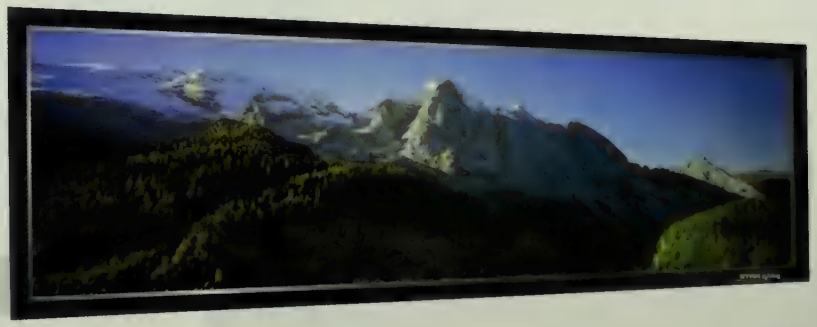
◄ The latest kitchen appliance

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▲ Backyard drive-in

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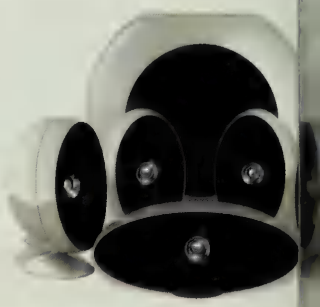
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► Sound for the entire room

When speakers aren't hidden in the wall, they'd better be able to hold their own visually in the den or living room. The 3000 Series Speaker System combines five full-channel speakers plus a subwoofer. The combination of styling and audio engineering results in a wide dispersion of sound, so listeners throughout the room—not just those in the sweet spot between the speakers—can enjoy the experience. KEF America, Marlboro, N.J. www.kefamerica.com **CIRCLE 206**





◄ Home control remote

The Vantage Controls TouchPoint 12 Table touchscreen is a home control interface and Web browser rolled into one. Vantage's InFusion Media software controls the functions of a Vantage home automation system, including lighting, window treatments, heating and cooling, gas fireplaces, security system, distributed audio system, and home theater equipment. Users can also pull up Web sites and check mail with the device. Vantage Controls, Orem, Utah. www.vantagecontrols.com **CIRCLE 207**

► Affordable lighting control

AuroRA is Lutron's simplified, affordable lighting control system for homeowners who want to enjoy limited benefits of lighting control with minimal installation, setup, or programming. The AuroRA package bundles five dimmers, one master control, one wireless controller, and a central antenna. Each of five buttons on the master control operates a single dimmer, and All On and All Off buttons control all five dimmers at once using radio frequency (RF) operation. The wireless controller clips to a car visor, enabling homeowners to turn on a series of lights before entering the house. Lutron Electronics, Coopersburg, Pa. www.lutron.com **CIRCLE 208**



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Good Design is Good Business.

The editors of *BusinessWeek* and *Architectural Record* invite you to enter the

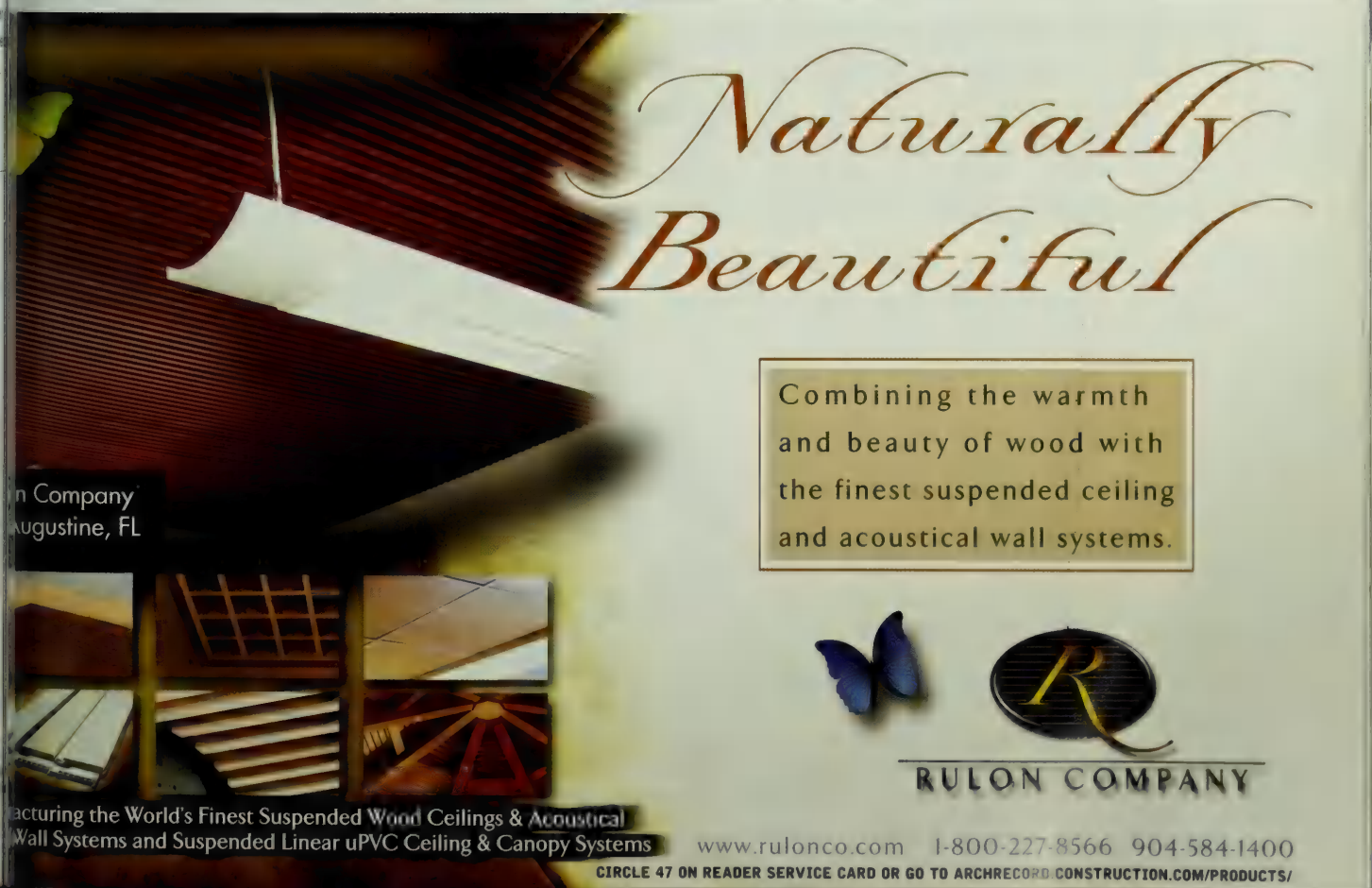
2007 BusinessWeek/Architectural Record Awards

Good design is good for business. That's why this distinguished award recognizes and rewards exceptionally designed work that makes a significant contribution to the business aspirations of a company or institution – backed by measurable results. 2007 Award recipients will be featured in *BusinessWeek* and *Architectural Record* magazines, read by over 5 million business and design professionals.

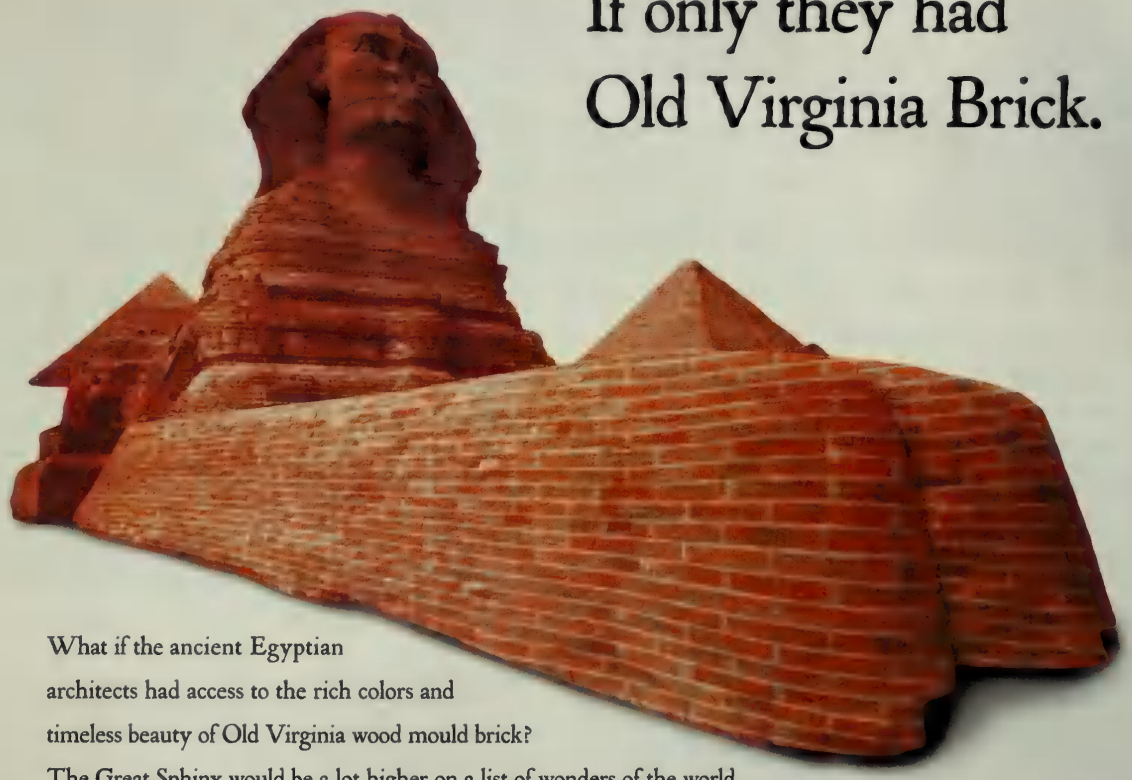
For more information and an entry form, go to **archrecord.construction.com/features/bwarAwards/**.

Entries must be postmarked no later than May 15, 2007.

BusinessWeek ARCHITECTURAL RECORD The McGraw-Hill Companies



If only they had Old Virginia Brick.



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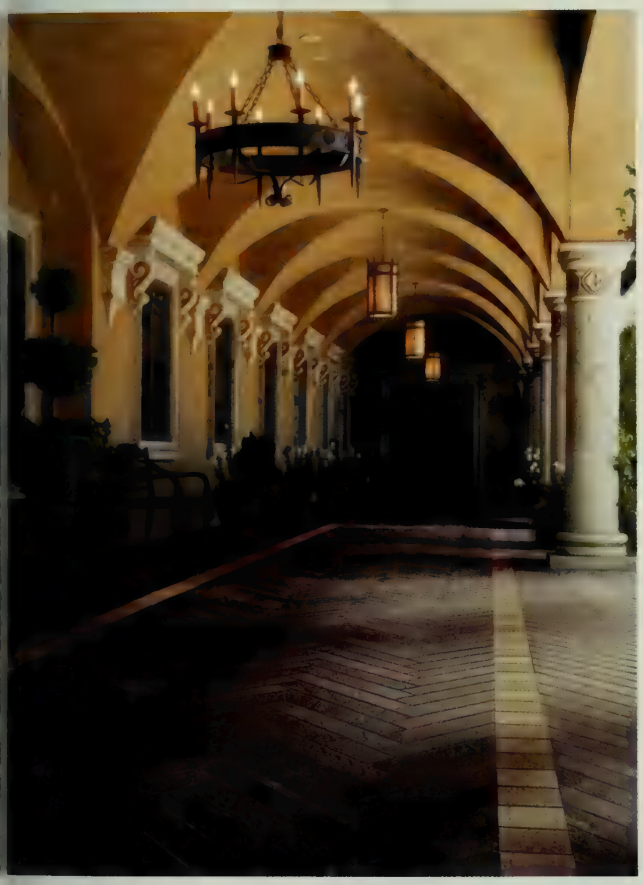
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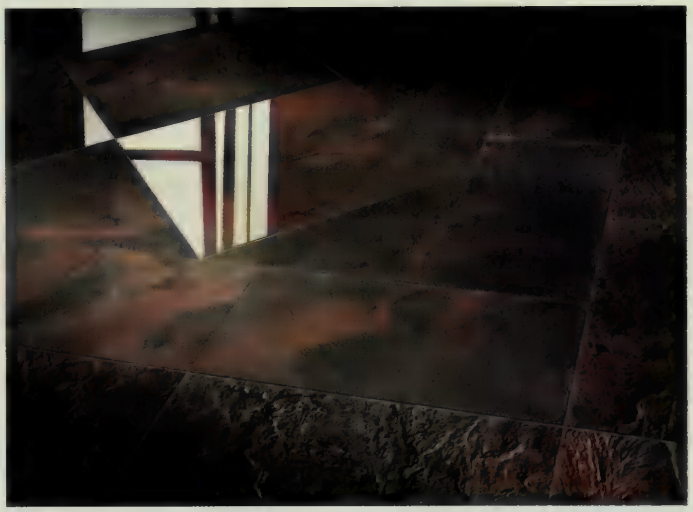
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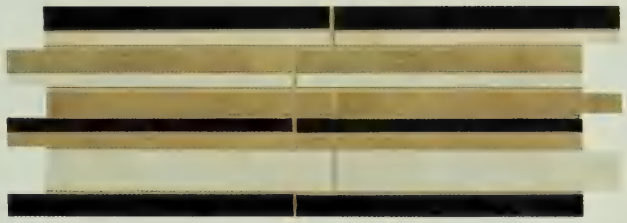
Tile, Stone & Concrete

We kick off the year with products and accessories intended for **hard surfacing** applications, including **flooring, decking, and indoor and retaining walls.** To find out what's new in 2007, visit World of Concrete, held 1/23–1/27 in Las Vegas, and the Coverings tile and stone show, held 4/17–4/20 in Chicago. *Rita Catinella Orrell*

oprietary technology creates three coordinating textures of porcelain tile







Clockwise from left: Textured Tango 4" × 24" tiles are framed by alternating 6" × 6" La Boca and Pampa textured tiles. The Tango colorway is shown in an unpolished, polished, and textured finish. The Recoleta listello (two shown).

nessee-based Crossville intends capture the romance and tempo Argentina's capital city with enos Aires Mood, a new line of rcelain stone tile products. ltistrato, a proprietary technology veloped specifically for the collec- n over the course of three years, eates subtle shading, fluidity, and ovement within each color.

Officially launched last tober at the Consulate General Argentina in New York City, the llection was produced in part- rship with Ilva S.A., a ceramic e producer located outside of Buenos Aires. After working for several years with Ilva and becoming enamored with Buenos Aires and it's culture, "It was just a natural thing to do to name the series after the city," says Laurie Lyza, marketing manager of Crossville.

Buenos Aires Mood is available in three surface textures for both commercial and residential use. The Multistrato technology allows for no major difference in color or graphic among the finishes. One offering has the texture and slip-resistance of slate and may be used for interior and well as exterior horizontal surfaces and paving, while the other two have the appearance of polished and unpolished marble. This allows specifiers to carry the collection across different spaces throughout a project without a jarring difference in color or visual effect.

The five colorways available in the line have a naturally random distribution of color, and each represents a location or cultural activity associated with the namesake city: Polo (a popular sport) is a creamy white-on-white with a hint of beige and gray veining; La Boca (a colorful neighborhood by the port) is a warm camel; Pampa (the grasslands) is a gray/beige blend; Recoleta (the cultural center of the city) is a chocolate hue accented with taupe and ivory; and Tango (the famous ballroom dance) features red and gold accents against a field of black.

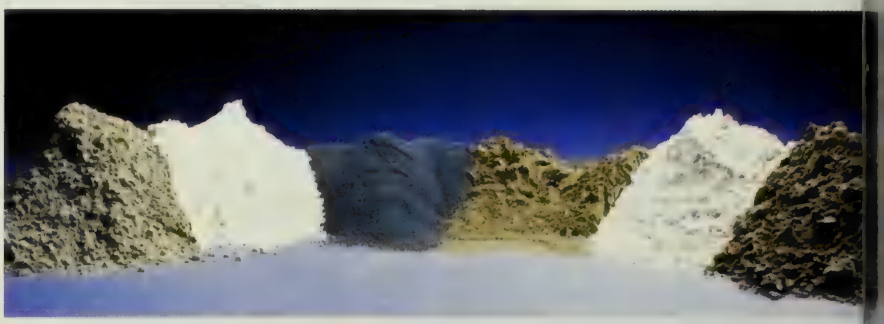
Each texture and color has rectified edges and is available in multiple sizes, from large format to mosaics to trims.

Crossville plans to introduce several new collections this year, including updates to its most popular color lines. Crossville, Crossville, Tenn. www.crossvilleinc.com **CIRCLE 209**

more information, circle item numbers on Reader Service Card or go to archrecord.construction.com, under Products, then Reader Service.

► Greener cement

Holcim launched the Envirocore family of products at the GreenBuild show held last November in Denver. Containing materials that have been recycled or coprocessed, the products are engineered to be utilized in all portland cement applications. They are produced in a method that uses less energy and fewer raw materials while generating less waste and pollution. The ingredients in the line range from fly ash, slag, pozzolans (natural deposits), limestone, and masonry/mortar cement. Holcim, Dundee, Mich. www.envirocore.us **CIRCLE 210**



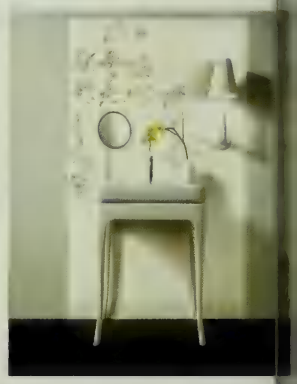


◄ Stone and tile sealers

DuPont StoneTech Professional introduced two improved stone and tile sealers at StonExpo 2006 that reduce the occurrence of residue. DuPont StoneTech Professional BulletProof Sealer and Heavy Duty Sealer are water-based and contain low levels of VOCs, making them compliant with recently enacted VOC regulations affecting areas in several states, including California, New Jersey, New York, and the District of Columbia. DuPont, Wilmington, Del. www.dupont.com **CIRCLE 211**

► Crafty tile collection

Bardelli commissioned designer Todd Boontje to develop a new tile series that uses the same palette and elegant floral decor designs for which he is renowned. The result is the Primavera line of Italian porcelain tile, a new compositional series whose modish flowers in pastels or platinum (shown, right) weave from tile to tile. The series comes in a 12-piece compositional set with six additional floral motifs. Italian Trade Commission, New York City. www.bardelli.it **CIRCLE 212**



▼ Retaining-wall heavyweight

The Bronco segmental retaining-wall system from Versa-Lok weighs in at 4,500 pounds and displays 14 square feet of face area. The system builds walls up to 10' tall without soil reinforcement, making it ideal for projects with excavation constraints. The four-panel, natural-stone appearance allows for a random face pattern. Bronco is wet-cast using approximately 1.25 cubic yards of concrete per unit and requires an 8" leveling band of granular road-base material. Versa-Lok, Oakdale, Minn. www.versa-lok.com **CIRCLE 213**





◄ Glass bottles redux

Oceanside Glasstile uses more than t million pounds of glass each year fro curbside recycling programs for a prod line that includes 20 to 86 percent re cled material, depending on the color. latest in the series is Elevations, shov here as a large-format field tile and li Also new is Tahoe, the blue-gold tiles accent the wall, and Facets, a line of m ture mosaic field tile, shown here in t tile "frame." Oceanside Glasstile, Carls Calif. www.glasstile.com **CIRCLE 214**



◄ Raised deck alternative

Custom-poured to provide a handcrafted look, Dekstone preca concrete is designed specifically for raised decks. Made from a mixture of color and 4,000 psi concrete reinforced with a specially designed welded wire mesh, the decks are intended for use in both residential and commercial applications. A moisture barri between Dekstone and the required 4' wood joists protects the wood from rainwater and moisture in the concrete. Stepstone, Gardena, Calif. www.dekstone.com **CIRCLE 215**

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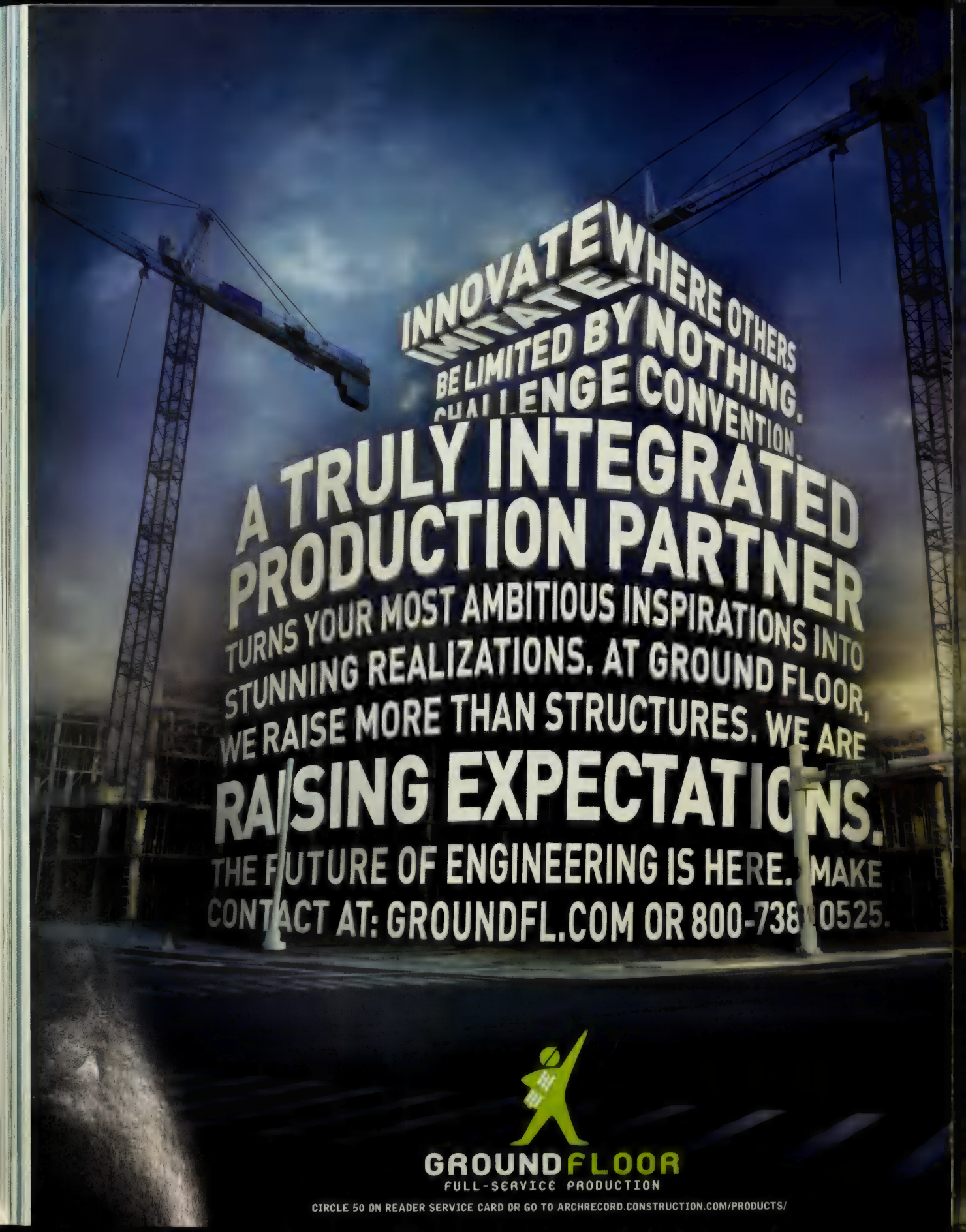
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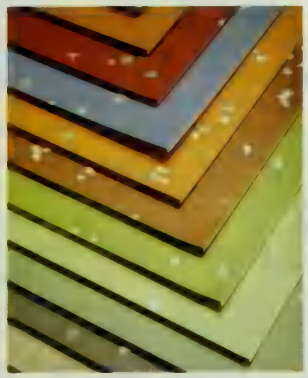


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Product Briefs

Hospitable flooring

manufacturers of nora rubber
ring worked closely with Kaiser
manente, the nation's largest non-
fit health-care system, to develop a
of commercial rubber flooring that
ets the needs of health-care interiors.
ilable in 48 nature-inspired colors,
PVC-free envirocare line is made of
n-quality rubber, mineral fillers, and
vironmentally compatible" pigments.
udenberg Building Systems, Lawrence,
ss. www.norarubber.com **CIRCLE 216**



▼ Well-cast collection

New Orleans–born architect Marion Cage earned her M.Arch. degree at Columbia University and has worked for the likes of Zaha Hadid and Bernard Tschumi. Cage first began designing custom hardware when clients couldn't find the designs they wanted off-the-shelf. After launching a jewelry collection in 2003, she applied what she learned from the casting process to create her first collection of hardware. Inspired by finds in Parisian flea markets, the line is available in bronze or brass in a variety of finishes and patinas. Marion Cage, New York City. www.marioncage.com **CIRCLE 217**





Health-care-specific seating

eilhauer has launched Sittris, a new company dedicated to the specific seating
eeds of the health-care market. The component seating system, designed for both
atients and caregivers, can be specified with a variety of leg and arm options for
atient rooms, nursing stations, public seating areas, and speciality purposes such
s bariatrics. Sittris BA (above) is designed to accommodate patients who weigh
om 350 to more than 500 pounds. Sittris, Toronto. www.sittris.com **CIRCLE 218**

► Stylish shower seat

Taking a new approach to a typically clunky product, Bristol and Bath have redesigned the shower seat. Constructed of acrylic and chrome, the seat can support up to 300 pounds and is available with or without a backrest. The seat height can be adjusted to suit the needs of various users, and it folds up when not in use. The seat isn't for projects with a tight budget, however—the basic version retails for $660. Bristol and Bath, King of Prussia, Pa. www.bristolbath.com **CIRCLE 219**





◄ Security blanket

The Zo-e-shield glazing system is now available on Weather Shield Windows & Doors products. The new technology delivers low center-of-glass U-values and solar-heat-gain coefficients while protecting interiors from UV rays. The glazing's exterior surface repels dirt and reduces water spots. Zo-e-shield's Real Warm Edge Spacers create an insulating barrier against heat flow, sound, and condensation. Weather Shield Windows & Doors, Medford, Wis. www.weathershield.com **CIRCLE 220**



◄ 300th birthday party

High Desert Forge was selected by the City of Albuquerque to design and fabricate the Tricentennial Towers and a group of 6'-square medallions as part of the city's 300th birthday celebration. Intended to be an iconic gateway image to the city's Old Town, the two towers are 65' tall and weight 14 tons each. They were fabricated from 1" and ¾" steel plate with stainless-steel adornments and painted copper highlights. High Desert Forge, Albuquerque, New Mexico. www.highdesertforge.com **CIRCLE 221**

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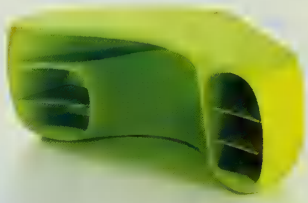


Product Briefs

▼ Netting and Nesting

Vitra's concept of the open-plan office is based on the "Net 'n' Nest" theory: People go to the office in order to comm nicate with others (Net), but they also need the option of withdrawing from the communal environment for solitary productivity (Nest). At last year's Orgatec tradeshow in Cologne, Germany, Vitra launched a new group of products by name designers that attempt to address both of these needs. The Worknest swivel office chair by Ronan and Erwan Bouroullec (below right) features a curving, enveloping shape with armrests that resembles a domestic armchair. The powdercoated ACSU storage system (left), designed by Antoni Citterio, offers both centralized and individual options for filing storage. A new take on desking, BaObab (below left), by Philipp Starck, offers cable management and storage, but is primarily sculptural element intended to "protect" users and "support w in a fresh way." Vitra, New York City. www.vitra.com **CIRCLE 222**



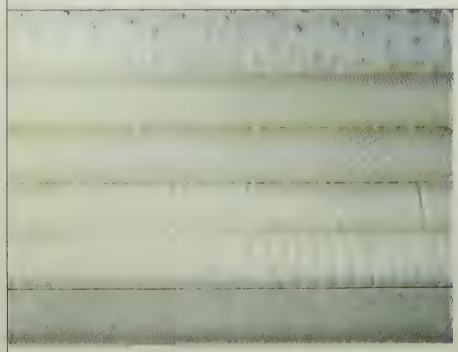




► Glueless backing system

InterfaceFLOR's introduction of TacTiles reflects Interface's Mission Zero goal—to eliminate by 2020 any negative impact its companies may have on the environment. The patent-pending, glueless, 3" x 3" PET plastic adhesive squares are affixed to the backing of adjoining carpet tiles, bonding the tiles to each other to create a "floating floor." Instead of hauling heavy equipment or buckets of glue to the site, installers bring only boxes of TacTiles and a 4-pound dispenser (right). InterfaceFLOR, LaGrange, Ga. www.interfaceflorcommercial.com **CIRCLE 223**





◄ Leather for tougher customers

Three and half years in development, Crypton and Edelman Leather have created a stain-resistant leathe product that is more durable and practical for heavy tr fic areas while retaining the luxurious hand of Edelma products. Ideal for aviation, hospitality, yachts, and eve health care, the new technology allows end users to remove odors and stains created by grease, coffee, wi and other common spills by using Edelman Leather Cleaner and Restorer powered by Crypton. Edelman, N Milford, Conn. www.edelmanfurniture.com **CIRCLE 224**

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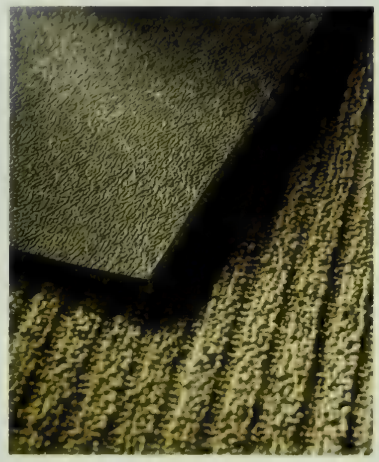
dding glam to the bath

York–based designer Jaime Drake found inspiration
is two collections of faucets and accessories for
in postwar French designs and Italian designs of
1950s. The handles for Profil, shown here in a plus-
shape, can be embellished with leather, horn, and
ious-stone inlays. The Emotion line includes handles
able in precious stone and amourette, a rare, dense
d with markings resembling snake skin. THG USA,
onut Creek, Fla. www.thgusa.com **CIRCLE 225**

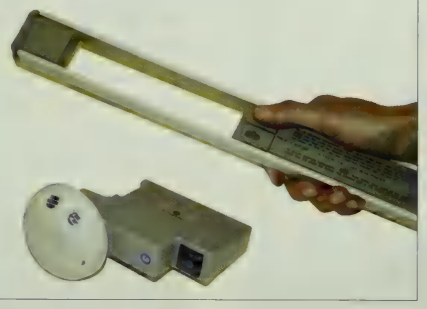


VC-free modular backing

st November's GreenBuild, Mohawk Group
duced Encycle, a patent-pending, PVC-free modu-
arpet-backing system that is designed with three
noplastic layers and zero-water-based compo-
s, enabling complete recyclability back into itself
out separation. The new backing system also incor-
tes 35 percent preconsumer recycled content by
product weight and utilizes 28 percent less virgin
materials. The Mohawk Group, Kennesaw, Ga.
.mohawkgroup.com **CIRCLE 226**





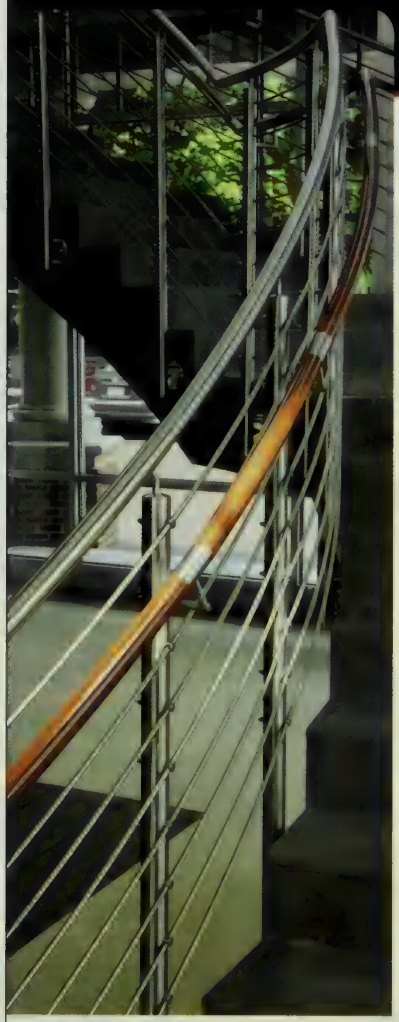


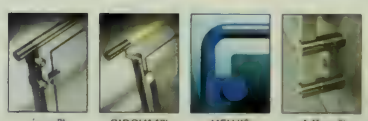
lagical wand saves money

via, a new Herman Miller company, has introduced the Convia Programmable Infrastructure, a modular and program-
le electrical infrastructure that delivers "plug and play" power virtually anywhere within a commercial space without
iring hardwiring of devices or switches. Using infrared technology via a secure, remote-control wand, users can con-
any off-the-shelf electrical or electronic devices that are plugged into Convia's system connectors. According to the
ufacturer, this can be achieved with installation costs at or below standard wiring, and life cycle costs that are ■ frac-
of the cost of traditional electric. Convia, a Herman Miller Company, Zeeland, Mich. www.hmconvia.com **CIRCLE 227**

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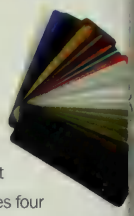
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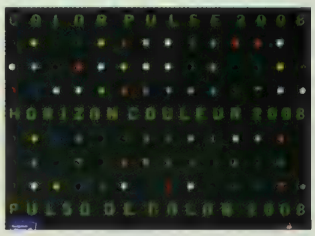
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Product Resources: Literature



Color trend forecast

Benjamin Moore's annual color report predicts the hues to have in 2008. *Color Pulse 2008* anticipates space will be the major issue influencing thinking about color in the next year. The report defines four categories of space—elemental, gravitational, inner, and infinite—and presents each color's ability to create, respectively, a natural, luminous, vibrant, or mysterious environment. Benjamin Moore, Montvale, N.J. www.benjaminmoore.com **CIRCLE 22**





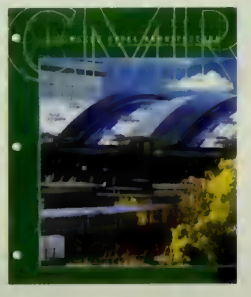
Gulf Coast cheat sheet

Simpson Strong-Tie has released a *High Wind Framing Connection Guide* of prescriptive solutions for meeting uplift and lateral load requirements in areas exposed to high winds. Focusing on wood frame construction for one- and two-story family dwellings, it intends to save time for code officials and contractors dealing with newly adopted building codes in the Southeast. Simpson Strong-Tie, Pleasanton, Calif. www.strongtie.com/hw **CIRCLE 229**



Health-care textile catalog

The Maharam Healthcare Initiative has produced a reference for health-care facility managers. *High Performance Textiles for Healthcare* provides an overview of types of textiles, with product descriptions, performance attributes, cleaning instructions, application recommendations, and a synopsis of health-care design development issues such as the use of color and new methods of infection control. Maharam, New York City. http://maharam.com **CIRCLE 230**



Stainless-steel architecture

Contrarian Metal Resources offers a new brochure of its stainless-steel finishes. The brochure stresses the importance of correct application by citing case studies of metallic corrosion. It then offers aid by detailing specific applications and identifying individual benefits of its wide variety of finishes, showcased here with more than 20 product illustrations. Contrarian Metal Resources, Cranberry Township, Pa. www.metalresources.net **CIRCLE 2**

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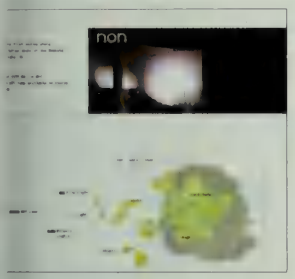
Product Resources: On the Web

www.nondesigns.com

idesigns's site has launched an ne store for its table, lamp, and other duct designs [RECORD, September 06, page 173], all of which can be tomized by the shopper right on the . Information about the design firm photo galleries of its work grow out nks like bean sprouts, so the site looks like a plant when opened. It be a jungle in there, but the site's ign successfully expresses the firm's ique aesthetic.

▼ www.vinylroofs.org/cool.html

The Chemical Fabrics and Film Association's Vinyl Roofing Division site now includes an environmental benefits overview. The site's teal and beige color scheme may not attest to vinyl's tastefulness, but clearly organized information about tax deductions, government rebates and incentives, building energy codes, product rating systems, voluntary green building programs, and tools such as energy calculators, make this an exceptionally informative site.









www.mocoloco.com

coloco is a modern contemporary ign and architecture Web magazine turing over 30 categories of designs, dings, and products with editorial lysis. The Web site focuses on design s well-edited content, but not in its out, which reads like a blog. Each nth, entries are discussed and illused in a vertical layout on a single e without a table of contents. Visitors t comments on individual designs.

▲ www.noodfashion.com

Nood Floorcovering has developed the Nood Lab, accessible through the pattern library on its Web site. Nood Lab allows designers to search for patterns, pan and zoom to survey each pattern, save designs in a password-protected portfolio, and visualize them in 216 colors in a virtual room scene. Floating text blocks can leave you feeling dizzy, but the Web site's colorful urban organic design is easy to navigate.

more information, circle item numbers on Reader Service Card or go to rrecord.construction.com, under Products, then Reader Service.

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Dates & Events

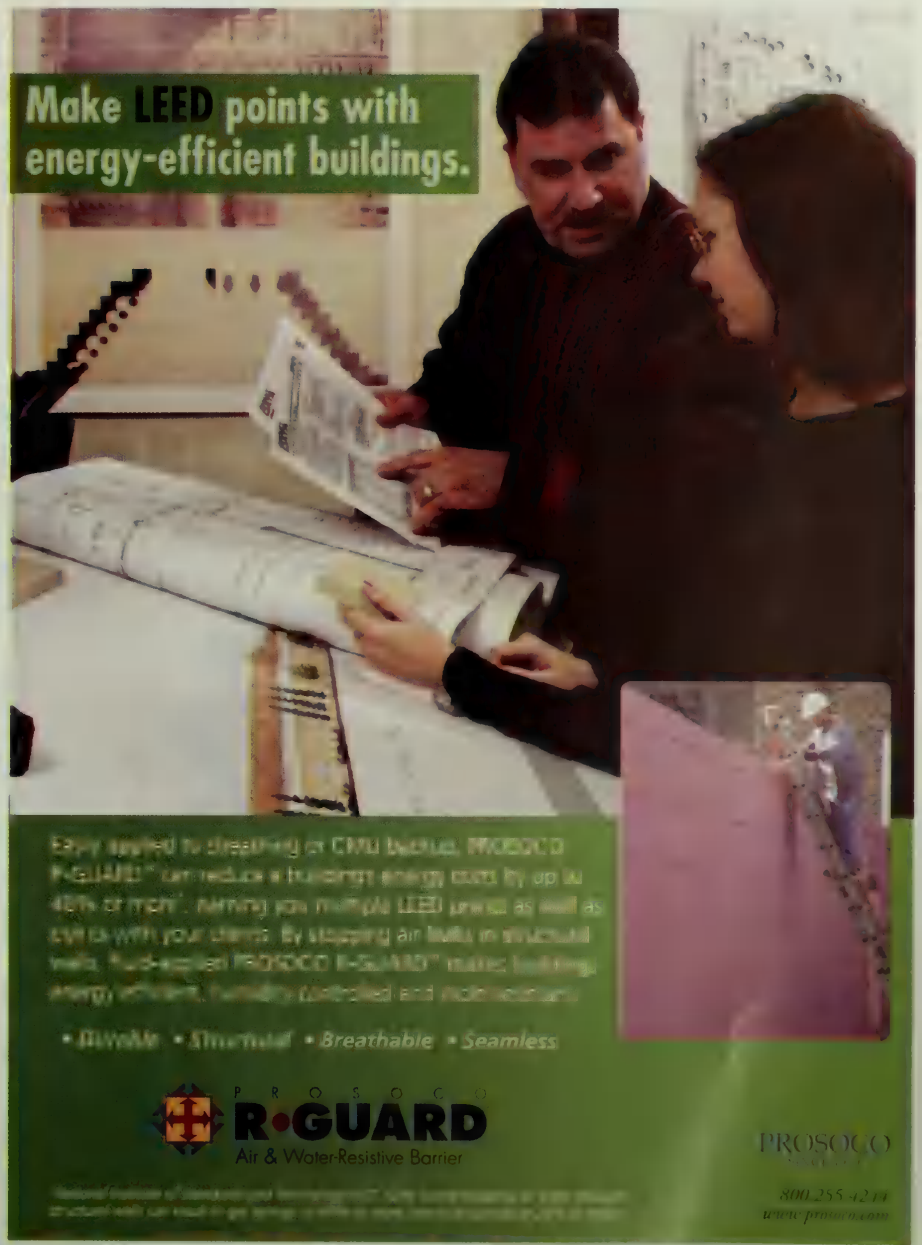
ew and Upcoming hibitions

nventing the Globe: A Shakespearean ater for the 21st Century
shington, D.C.
uary 13–August 27, 2007
exhibition presents the results of a commission ve talented architects and designers to develop othetical settings for the presentation of kespearean plays. The projects are highly inven-, thought-provoking, and often quite surprising. he National Building Museum. For more infor-ion, call 202/272-2448 or visit www.nbm.org.

irie Skyscraper:
nk Lloyd Wright's Price Tower
cago
uary 18–May 4, 2007
Price Tower Arts Center in Bartlesville, ahoma, has the distinction of being the / fully realized skyscraper Frank Lloyd Wright r designed. Built in 1956 and inspired by a :, at 19 stories tall, the building transformed flat prairie on which it was built, altering horizon with Wright's bold architectural ement. This exhibition celebrates the 50th iversary of this milestone in American archi-ure and features drawings, photographs, ding components, and some of the original ishings designed by the architect. Call /922-3432 or visit www.architecture.org.

Last Four Miles
lcago
uary 25–March 10, 2007
cago's 26-mile lakefront is world-renowned its beauty, and, unlike many urban water-ts, Chicago's shores are mainly public park d, accessible to everyone. However, two tches of the shoreline (totaling approxi-ely 4 miles) on Chicago's South Side remain rivate and quasi-governmental hands. s exhibition, presented in conjunction with cago's Friends of the Parks, unveils plans for redeveloping this land to complete shoreline park system from Evanston he Indiana border. Call 312/922-3432 or t www.architecture.org.

en House: Architecture and chnology for Intelligent Living sadena, Calif.
March 10–July 1, 2007
Open House will offer diverse and captivating glimpses into the house of the future as a place for new spatial experiences, systems of sustainability, and sensory enhancements through recent technologies and material developments. The exhibition will feature specially commissioned "intelligent houses" by 10 teams of emerging architects and designers from the United States, Europe, Australia, Asia, and Mexico. In addition, *Open House* will investigate the rich history of the idea of the "house of the future" and concepts of future living, placing the new commissions in both a contemporary and historical context. The show will be held at the Art Center College of Design's South Campus in Pasadena, California. For more information, you can call 626/396-2200 or visit www.artcenter.edu.



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Dates & Events

Ongoing Exhibitions

Constructing the Swiss Landscape
Cambridge, Mass.
Through January 15, 2007
This exhibition examines the Swiss landscape as both a design and cultural construct. Projects include the mapping of Switzerland as an urban entity, engineered landscapes, and contemporary landscape design. At Harvard University Graduate School of Design. For more information, call 617/495-5453 or visit www.gsd.harvard.edu/swissla.

OMA in Beijing: China Central Television Headquarters by Ole Scheeren and Rem Koolhaas
New York City
Through February 26, 2007
Scheduled to open for the Beijing Olympics in 2008, the complex comprises three buildings and a media park situated on a 20-hectare (49 acre) site east of Beijing's Forbidden City. The international partnership Office for Metropolitan Architecture (OMA) won the competition for its design in 2002, and the project broke ground in 2004, with OMA partner Ole Scheeren leading its design and execution from Beijing. The exhibition explores the project through an array of graphics, renderings, and explanatory texts, as well as large- and small-scale models. A selection of architectural drawings from New York's Museum of Modern Art collection will situate the project as one of the most visionary built works in the history of modern architecture. At MoMA. For more information, call 212/708-9400 or visit www.moma.org.

Some Assembly Required
Los Angeles
Through March 13, 2007
For this innovative new show, architects and home buyers unite to support a variety of modern modular dwellings that refute the commonly accepted image of "prefab" homes as cheap, cookie-cutter structures. This exhibition presents various approaches to prefab houses: those built with a kit and an instruction manual or the diminutive one-room version. At the Pacific Design Center. For more information, call 310/657-0800 or visit www.pacificdesigncenter.com.

Modernism in American Silver: 20th-Century Design
Miami Beach, Fla.
Through March 25, 2007
This show charts the stylistic design history of modern American production silver while exploring the economic and cultural factors that influenced silver design, manufacture, and marketing across more than seven decades. At the Wolfsonian-FIU. For more information, call 305/535-1001 or visit www.wolfsonian.org.

The 2006 National Design Triennial: Design Life Now
New York City
Through July 29, 2007
Inaugurated in 2000, the Triennial seeks out and presents the most innovative American designs from the prior three years in a variety of fields, including product design, architecture, furniture, film, graphics, new technologies, animation, science, medicine, and fashion. On view throughout the museum campus will be the work of 87 designers and firms, ranging from established design leaders such as Apple Computer, architect Santiago Calatrava, and Nike to emerging designers like Joshua Davis, Jason Miller, and David Wiseman. At the Cooper-Hewitt National Design Museum. For more information, call 212/849-8400 or visit www.ndm.si.edu.



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c R. Multhauf nchtime Lectures icago

dnesdays, January 10–31, 2007

free lectures include: Zurich posito: "The AIA Chicago Design ellence Awards"; Susan King: ily Girl Architect—Lonely: 100 rs of Women Architects Working rganizing in Chicago"; Jeanne ng: "Aqua Tower"; Charles tson: "Mo(dern) Mo(mentum), Building Rising at State and ndolph." At the ArchiCenter. Call 2/922-3432 or visit www.architecture.org.

yVision Final esentation: Young signers Envision Future C. Monuments and morials shington, D.C.

uary 12, 2007

Museum's CityVision program teaches participants how to initiate and promote change in their communities through the processes and products of design, students learn problem solving, teamwork, and advocacy. During the fall 2006 semester of CityVision, participants from Paul Public Charter School, Browne Junior High School, and MacFarland Middle School worked with the National Capital Planning Commission to enhance areas surrounding the National Mall. Students will present their "monumental" ideas for improving East Potomac Park, Banneker Overlook, and the RFK Stadium site. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

2007 Vincent J. Scully Prize: Witold Rybczynski Washington, D.C.

January 17, 2007

Author, scholar, professor, and architect Witold Rybczynski has investigated and chronicled the fields of architecture and urban planning for more than 20 years. The National Building Museum is recognizing Rybczynski's valued contributions to architecture and urban planning by presenting him with the 2007 Scully Prize. Following the ceremony, Rybczynski will give a lecture on "Demand-Side Urbanism." At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Spring 2007 Lecture Series: Design Goes Mainstream Houston

January 17–February 7, 2007

In recent years, "design" has permeated the mainstream. Companies like Target, IKEA, Design Within Reach, and Apple have been the harbingers of style to the general public. Magazines like *Wallpaper* and *Dwell* present a design-conscious lifestyle and are read by designers and the general public alike. This lecture series will explore larger issues of design and the products we use in everyday life. Wednesdays at Brown Auditorium, The Museum of Fine Arts, Houston. Call 713/348-4876 or visit www.rda.rice.edu.

Competitions

2007 PCA Educational Foundation Research Fellowships

Deadline: January 15, 2007

Each year the Education Foundation of the Portland Cement Association (PCA) awards students working on projects related to cement manufacturing, concrete technology, and residential, public works, masonry, and engineered structures. The fellowships are open to any student completing studies toward a master's or doctoral degree from an institution of higher education within Canada or the United States that is accredited by a regional or national agency. The applicant must be pursuing graduate study in an engineering, science, material science, or architectural program. Call 847/972-9164 or visit www.cement.org.

Sally Kress Tompkins Fellowship 2007

Deadline: January 15, 2007



Dates & Events

A joint program of the Society of Architectural Historians (SAH) and the Historic American Buildings Survey (HABS) permits an architectural historian to work on a 12-week HABS project during the summer of 2007. The award consists of a $10,000 stipend and announcement during the Society's 60th Annual Meeting in April. Call 202/354-2180 or visit www.cr.nps.gov/hdp.

2007 COTE Top Ten Green Projects

Deadline: January 17, 2007

Since 1996, this juried recognition program has celebrated the best in sustainable design. The program requirements are unique and require narrative descriptions as well as performance metrics. This unusual set of requirements is part of the program's recognition of the importance of qualitative and quantitative elements of sustainable design. These COTE measures and metrics of sustainable design are a framework for a holistic understanding of sustainable design. Visit www.aiatopten.org.

AISC IDEASÇ Awards Competition

Deadline: January 31, 2007

Engineers, architects, fabricators, and all other building team members are invited to submit their best recent projects to the American Institute of Steel Construction's IDEASÇ Awards. Projects where structural steel has been used in an innovative manner will be recognized. Visit www.aisc.org.

2007 SEGD Design Awards Program

Deadline: January 31, 2007

The Society for Environmental Graphic Design (SEGD) annual design competition honors the best in environmental graphic design. Projects include themed environments, way-finding and signage, place-making projects, mapping, public art, identity programs, architectural graphics, exhibits, and retail. Visit www.segd.org.

The James Beard Foundation Awards

Restaurant and Graphics

Deadline: January 31, 2007

The James Beard Foundation Awards recognize outstanding achievement within the fine food and beverage industries. The awards honor professionals in these fields, including cookbook authors, chefs, restaurateurs, winemakers, journalists, broadcasters, as well as restaurant and graphic designers in the United States. This competition is open to architects and designers in North America for restaurant projects since 2004. For additional information, visit www.jamesbeard.org.

Villa Esperanza: A Santa F Sustainable Ideas Competition

Deadline: February 5, 2007

The goal of this international cor petition is to provide a model for social justice and sustainable ho ing design in Santa Fe, New Mex The project focuses on the redes of an existing low-income-housin project to address issues of urba transit, green design, and afford ability. For further information, vi www.santafedesignweek.com.

Ceramic Tiles of Italy Desi Competition Call For Entri 2007

Deadline: February 9, 2007

The 14th annual Design Competi honors design excellence in proje that feature Italian ceramic tile. North American architects and interior designers are invited to submit residential, commercial, and institutional projects complet between January 2002 and Janu 2007. Entries may be submitted f domestic and international new



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struction and renovation projects. For
information, visit www.italytile.
/italytilenew/html/DesignComp2007.asp.

ng Architects Competition: Proof

dline: February 12, 2007

icipants in the program are chosen through
rtfolio competition that is juried by distin-
hed architects, artists, and critics, and the
ng Architects Committee. The committee, a
ip selected each year from past participants
ie Young Architects Forum, is responsible for
eloping the program's theme and selecting
ipetition jurors. Open to designers 10 years
ess out of school, the competition draws
ants from around North America. Call
/753-1722 or visit www.archleague.org.

07 Aurora Awards

dline: March 9, 2007

ders and architects who have demonstrated
ellence and creativity when designing hurri-
e-resistant structures are invited to submit
posals to this design competition recognizing
ects in the southeastern United States.
utia, a manufacturer of polyvinyl butyral
3) interlayers for impact-resistant glass, is
nsoring a new category in the competition:
Safe & Secure Award will recognize
ders, designers, architects, and other
ne-building professionals who incorporate—
meet or exceed code requirements
—impact-resistant windows and doors for
ety, and who use other design elements that
imize the effects of hurricanes and other
sters on residential structures. For more
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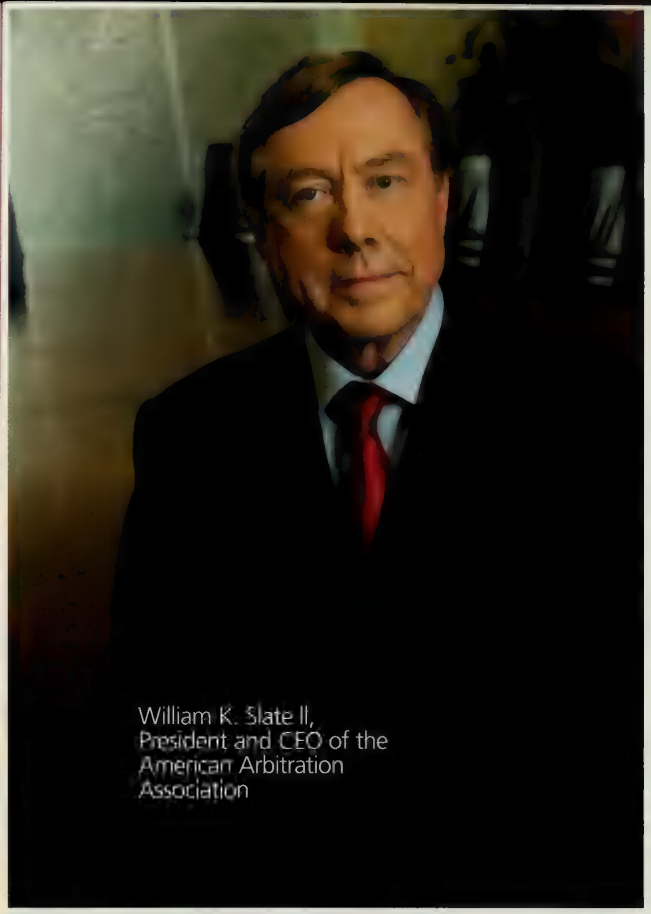
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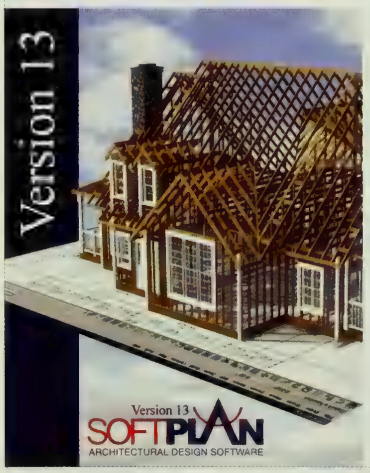
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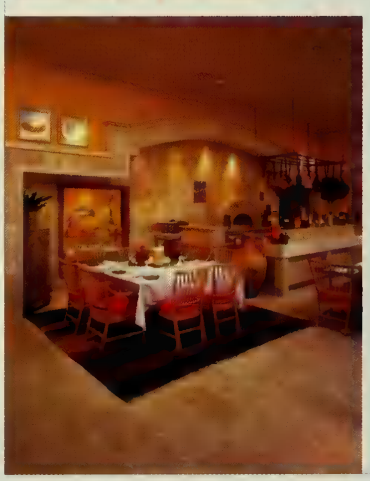
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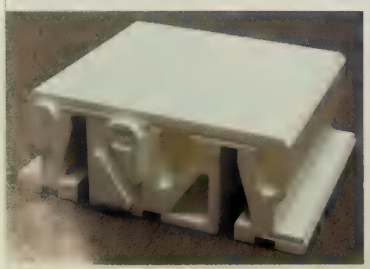
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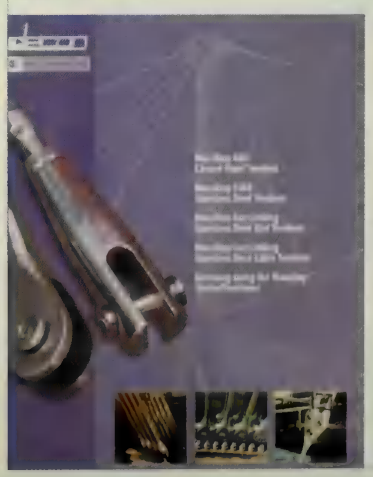


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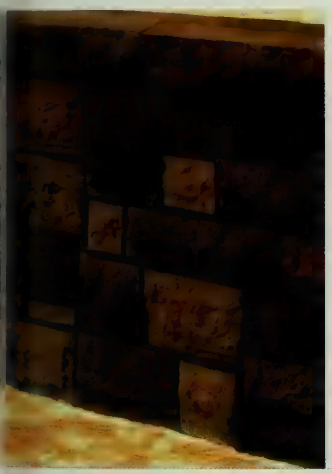
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800-835-4400
www.outwater.com

Circle Reader Service #157

Fire-Rated Aluminum Products

Aluflam North America



Imagine being able to specify a fire-rated system that looks so good you wouldn't know it's fire-rated. Imagine the clean, rich lines of clear glass. With ALUFLAM storefront and curtainwall systems, this is reality. Contact them for further information.

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Circle Reader Service #160

olumns, Balustrades & Cornices

elton Classics



Melton Classics provides the design professional with the most comprehensive selection of quality architectural products in the industry, including architectural columns, balustrades, mouldings, cornices, and a wide array of architectural elements. Architectural columns are available plain or fluted, load-bearing or column covers, round or square in fiberglass, fiberglass/marble composite, synthetic stone, cast stone, GFRC, and wood for paint or stain. Melton Classics offers maintenance-free balustrade products ideal for any application.

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Pre-Engineered Door Hardware

HDI Railings



From minimalist simplicity to stylish sophistication, HDI offers pull handles to suit every taste. Featuring nearly 60 distinct designs made from stainless steel, wood, glass and stone, you're sure to find a solution to your need. Many pull handles come in a variety of sizes, and the HEWI CombiSystem features a patented method of adjustment, allowing easy installation on existing doors.

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Anti-Reflective Glass

IGT Glass



Luxar anti-reflective glass is perfect for any glass application where glare and reflection are not wanted. Luxar reduces glare and reflection to less than 0.5%. It is perfect for museums, store fronts, stadiums, restaurants, projection rooms and display cases. It is available on low iron float glass for maximum clarity in 2mm to 12mm thicknesses to meet any project requirement.

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Curved Translucent FRP Panel Systems

Major Industries



When your daylighting pr... demands something special, ... TransCURVE™ translucent bui... panel system provides excepti... performance, with the added be... of a striking, unique appear... TransCURVE™ glazing panels fe... a visually attractive aluminum ... core in several popular pat... giving panels ■ refined look ... maintaining exceptional stre... TransCURVE™ also features ■ p... um architectural-grade FRP ex... skin that blocks damaging UV ... while transmitting the beauty o... ural light.

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Circle Reader Service ...

Next-Generation Daylighting

Kalwall Corporation



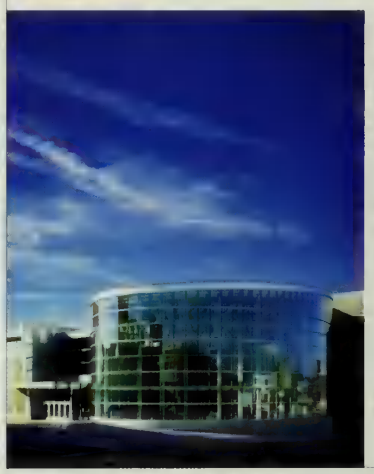
New Kalwall 100™ panels enable architects to meet daylighting needs and building envelope energy requirements at a lower cost than the formerly released Kalwall+ Nanogel system, which at 2-3/4-in. thick holds a .05 U-value. The Kalwall 100 exterior panel, which has a U-value of .08, is 4-in. thick and increases the structural capabilities of earlier versions to meet the worldwide demands of new building regulations for stiffer, stronger cladding, in response to recent natural disasters.

800-258-9777
www.kalwall.com

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Solar Control Glass

Oldcastle Glass



Exclusive, new SunGlass™ ... Control Glass delivers the beau... the sun without the heat. Now a... tects can specify a neutral color ... that invites the sun in without ... ing building occupants sweat. T... because SunGlass™ delivers a co... nation of unprecedented solar co... and visible light transmittance ... the look you want with the perf... ance you need.

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For over 70 years, Krieger has been custom manufacturing acoustical, blast, bullet, security, radio frequency shielding, thermal shielding, stainless steel and other special purpose doors and windows. Their custom designed and manufactured doors and windows are utilized by leading architects in premier installations such as the Kodak Theater, Disney Concert Hall, Hollywood Bowl, Max Fisher Performing Center, Boeing Integration Center, The Getty Museum, L.A. Zoo, Basketball Hall of Fame, the Pentagon, and various other U.S. government, military, and embassy buildings throughout the world.

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www.kriegerproducts.com

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Anti-Reflective Glass

Pilkington



OptiView™ Anti-Reflective Glass ... imizes glass reflections by red ... visible light reflectance to less ... 2%, while blocking more than 9... UV transmittance using Pilking... online pyrolytic process. OptiV... Anti-Reflective Glass offers mor... flexibility than other anti-refle... glass products. Being a lami... OptiView™ Glass provides exc... acoustic control and superior ... and security performance. Pilki... OptiView™ is a practical choic... retail storefronts, showrooms, ... other applications where an ... reflective product was neve... option.

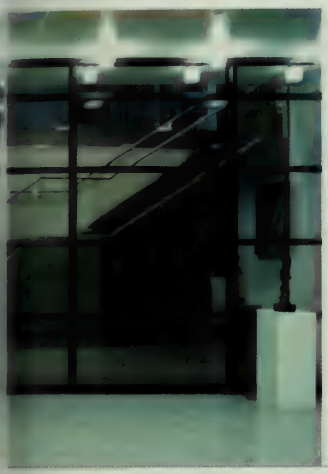
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re-Resistant Glass

kington North America - Fire Protection Glass



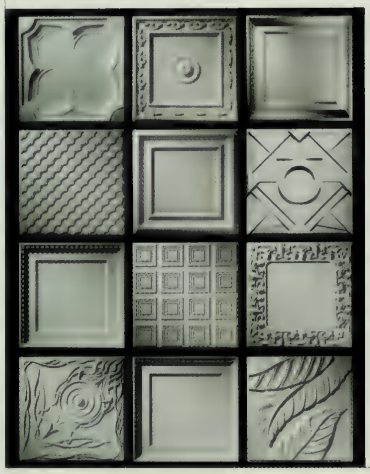
Pilkington Pyrostop™ is available with many options including opaque films, colored interlayers, surface designs and lightly sandblasted. Pilkington Pyrostop™ can also be combined with any of the Pilkington products to meet your design needs. For more information contact Technical Glass Products or visit their web site.

800-426-0279
www.fireglass.com

Circle Reader Service #168

Ornamental Plaster Ceiling Tiles

Above View Mfg., By Tiles, Inc.



Above View ornamental plaster ceiling tiles are fabricated from a non-toxic, non-combustible, proprietary composition. They drop into any standard 15/16-in. T-Bar grid system. There are more than 50 standard designs, custom design work, and 1,300 custom colors and faux finishes available upon request.

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Crane Composites, Inc. (formerly Kemlite Company, Inc.)



The look of tile, The ease of FRP. The frpDesign Solutions Matrex panel has a high gloss decorative surface in solid and granite colors. Matrex fiberglass reinforced plastic (frp) panels are available with 4-in. by 4-in. sealed simulated grout lines or without grout lines and are easy to install and maintain. For more information, visit Kemlite on the web.

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www.frpdesignsolutions.com

Circle Reader Service #172

re-Rated Glass & Framing

chnical Glass Products



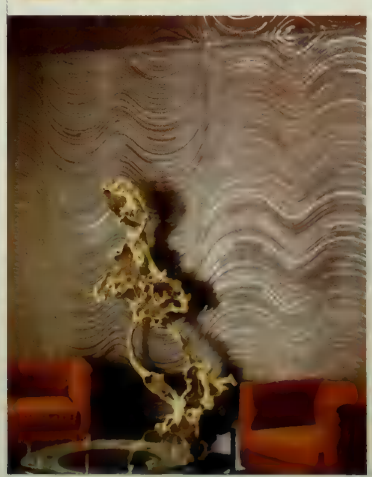
Technical Glass Products has been a national distributor of fire-rated glazing and framing materials since 1980. They are committed to providing reliable, rapid service and outstanding product options. Their knowledgeable staff can assist you in determining which product is right for your application. Contact Technical Glass Products at 1-800-426-0279 or www.fireglass.com.

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www.fireglass.com

Circle Reader Service #170

Cast Metal Wall Surfacing Material

Gage Corporation, Intl.



Gagecast® is a cast metal wall surfacing material suitable for a variety of interior architectural applications where patterns that feature high luster, relief, durability, and cost effective installation are a requirement. Twenty-eight designs are standard, however, custom collaboration is encouraged. Gagecast® is one component of Gage Vertical Surfacing. Contact the factory for product literature and selected samples. Email gage@centurytel.net

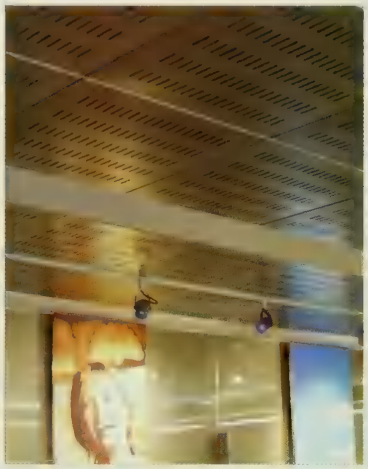
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www.gageverticalsurfacing.com

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deidre_allen@McGraw-

Perforated Metal Ceilings

Gage Corporation, Intl.



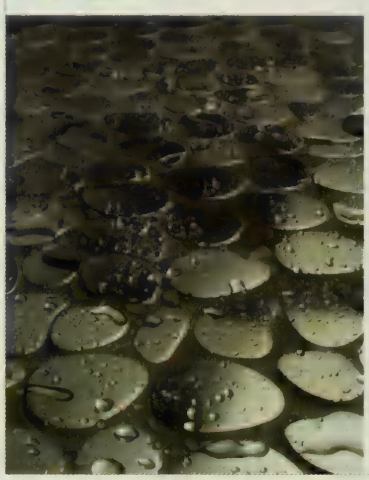
Setting a new standard for perforated metal ceilings, Gage introduces the 700 Series of perforated metal ceilings manufactured from 50% recycled aluminum. Standard designs include five distinctive finishes and 14 different perforation patterns. Selective and custom designs are also available. Contact the Gage factory for literature and samples.

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SOLI offers one-of-a-kind architec surfaces for traditional and contem rary applications. From metal to m granite to glass, SOLI products distinctive design to floors and indoors and out. They also offer a ety of unique porphyry, cobbles and pavers. View their exte collection of innovative tile and ral stone at www.soliusa.com.

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Haro Sports Floors



merican Sports Center, Anaheim, CA
00,000sf of Haro Helsinki 10
argest Sports Hall in the World

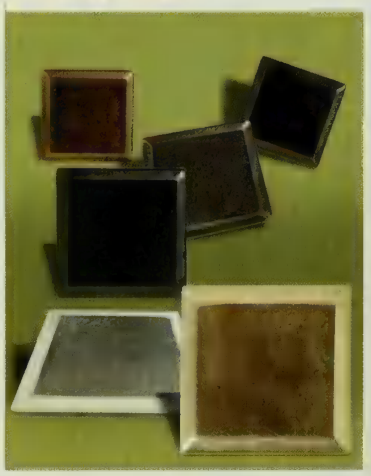
Athletes shouldn't suffer through injuries due to poor performing sports floor. Athletic Floor Systems provides the best performing, safest and lowest cost gymnasium floors available. AFS supplies sports floors for competition gyms, sports arenas and multi-purpose facilities. There are more than 7500+ installations in over 65 countries. Demand performance, safety and low cost in your next sports floor.

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Sun Valley Bronze, Inc.



Beauty and function. The Sun Bronze Tile Collection combi sleek look with exquisite craft ship. Custom sizes are available either a square edge or be edge, and in a choice of 6 patina Tile Collection is a perfect backd Sun Valley Bronze cabinet har in your kitchen or bath.

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Green Roof Systems

Homasote Company



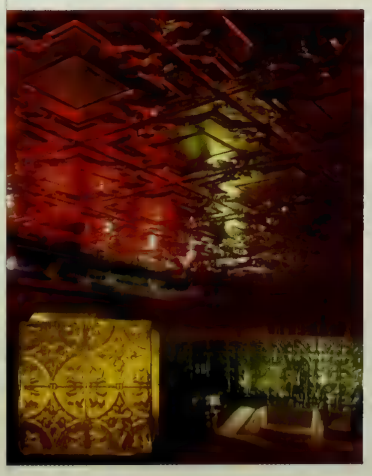
Homasote Company, one of America's leading green building products manufacturers and nailbase roof insulation's originator, has received Factory Mutual approval for N.C.F.R.® Thermasote® on steel roof decks. Use it to specify attractive, residential-looking roofs for multi-family, mixed-use, commercial, medical and other construction. For an alternative green roof system, excellent for conventional and LEED® construction, specify Firestall® Roof Deck with N.C.F.R. Thermasote. Wind uplift tests show these Homasote® systems make code in wind-prone areas.

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One of the largest manufactur authentic tin ceilings panels, of over 30 of the finest embossmen terns and over 50 high quality p coat finishes. Exclusive distribut the innovative SnapLock™ Dropin tin ceiling panels. designers provide free phone c tation six days a week. shipped direct worldwide. Fax ber 941-359-8776

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Architectural Sheetmetal Products

CopperCraft



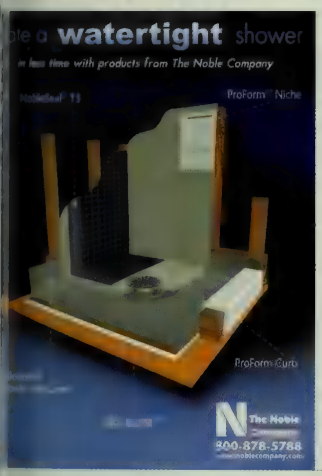
Structural integrity and performance are as important as aesthetics. Applying this understanding to the manufacture of its products is what sets CopperCraft apart from the competition. Their design, engineering, testing, and fabrication methods meet stringent structural and performance standards. You get unsurpassed quality, delivery, and custom service including a nationwide network of representatives. Their complete line of high quality architectural sheetmetal products include ornamental dormers, roof vents, roof drainage products, conductor heads, steeples, cupolas, and spires.

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www.coppercraft.com

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Save time and money and avoid leaks that can lead to the growth of mold. Use Noble Company's shower waterproofing products to help ensure a watertight installation. Products include sheet membranes, like Chloraloy® and NobleSeal® TS, ProForm™ Niches and Curbs, and PRO-SLOPE™, a composite that creates the required slope under the waterproofing membrane. Proven products with a history of success. For more information call or visit their web site.

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www.noblecompany.com

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Canopies & Walkway Covers

CPI Daylighting Inc.



CPI's new LiteBrow Suspended Light Transmitting Canopies provide an excellent shelter with an open-air feeling, allowing natural daylight through to light up the area below. They are provided in a variety of widths and lengths, projecting from 3- to 5-ft.-wide and up to 24-ft. in length. LiteBrow canopies offer an economical, functional design with unequaled aesthetic appeal.

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celain Floor Tiles

Ceramica



On Viva Ceramica's 1-cm-thick Backstage tiles, available in the 60x90 and 30x90 sizes, they fused 2-m of metal onto the through-bodied porcelain slab. The resulting metalized glaze was then colored before they honed it to reveal totally unexpected metallic effects in green/yellow, red/orange, red/white and blue/black. All this as well as a really natural looking surface all set for the challenges of wear and tear and aging in a completely new way. Ideal for private homes and bathrooms, Backstage can also be used to great effect by interior designers in decorating ultra-modern stores.

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Introducing the new "ARCHETYPE SHELF" free-standing display unit. This sturdy-yet-elegant shelving unit will add a sense of artistry and intrigue to any space. Gyford's custom extrusion 2x4 frame uses finely machined aluminum EZ-Rod/Wire hardware components to suspend tempered glass shelves on stainless steel wire. Mobility can be achieved with the addition of casters. Custom configurations are available to meet your design requirements.

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PolyVision® Corporation



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ation equipment, for any
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management systems are the
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Listed and CE, plus finest warr
Eight product types include F
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Rotating File Cabinets

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Aurora Products introduces the 2-Tier Times-2, a new twist on storage and filing. At only 29-1/2-in. high, the 2-Tier Times-2 is a perfect desk companion, providing dual-sided filing in ■ locking cabinet that rotates. This Times-2 holds as much as one 4-drawer 30-in. lateral file in ■ foot print that's just 36-in. wide by 25-in. deep. A variety of accessories accommodates all types of multimedia storage and filing. For more information call or visit them on the Web.

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www.timestwo.com
AIA Booth #3446

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Mobile Storage System

Aurora by Richards-Wilcox



The new Aurora Tempo pr
unsurpassed value in a mobile
age system. With standard uni
options, Richards-Wilcox is a
pass along big benefits in a s
that sets ■ whole new pace fo
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toll free at 800-877-8456.

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www.aurorastorage.com

Circle Reader Servi

Deep Seating Club Chair

Modern Outdoor Inc.



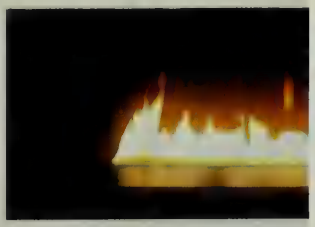
New to the Etra line is this deep seating club chair. Designed for comfort and style, the deep seating line also includes a sofa and ottoman. They offer four complete lines of high-style, clean-lined environmentally conscious outdoor furniture. The Modern Outdoor Collections are commercial grade products designed for use in all manner of public spaces—restaurants, hospitality, parks, resorts, hotels... yet have an aesthetic that is perfect for a residential client's backyard setting. View the entirety of their collection online.

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Spark Modern Fires



They are reinstating the gas fir
as a choice for the modern
Spark affords ■ paradigm shift
presentation of gas fires.
flames, fresh shapes and sizes
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stom Light Fixtures

.IGHTING



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www.cplighting.com

Circle Reader Service #192

Vapor-Tight Lighting Fixtures

Luraline Products



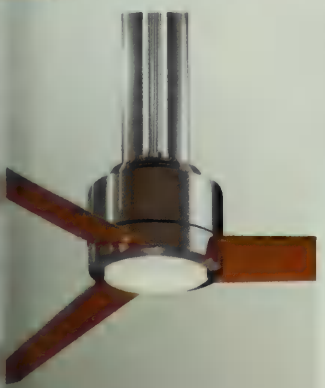
Vanguard vapor-tight lighting fixtures are ideal for industrial styled interiors and exterior settings requiring extra protection. Suitable for use in wet locations, all fixtures are fully gasketed to withstand moisture and the elements. Offered in pendant, surface and wall-mount configurations with incandescent, compact fluorescent or H.I.D. lamping. Shown is the Vanguard-E specification-grade, compact-fluorescent pendant with integrated electronic ballast.

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www.luraline.com/vanguard

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quared



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www.g2art.com

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Sleek & Contemporary Pendants

W2 Architectural Lighting



Bridging function and design, W2 ARCHITECTURAL LIGHTING introduces "Architectural Elements," contemporary pendants crafted with a sleek design and scale for large, challenging spaces. W2 ARCHITECTURAL LIGHTING, a new division of W.A.C. Lighting, offers specification grade products for commercial, hospitality and retail applications. Achieving a perfect balance of color and light, the pendants are designed with glossy, cased Opal glass shades to spread light evenly and minimize glare.

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Circle Reader Service #196

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za Lighting USA



Hunza offers a choice of two Pillar Lites designed to light both upwards and downwards on an exterior wall or pillar. The standard Pillar uses twin MR16 lamps while the Euro Pillar offers distinctive, machined styling and more compact dimensions with two MR11 lamps.

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AIA150

GROWING BEYOND
green



convention 2007

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landscape architecture
urban design

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Other key responsibilities include serving on the management team and working with managers to use financial data to effectively manage projects, to operate efficiently, and to continuously raise the level of financial literacy firm wide.

Requirements - 7+ years as a successful, hands-on Director/Manager of Business or CFO/Controller in a 70+ person architectural or landscape architectural firm, directly managing 5+ people. Must have exceptional business acumen, high integrity, excellent communication, presentation and people skills, proven ability to work with highly creative people, strong executive presence and be a collaborative, an agent of positive change. Must also have/be:

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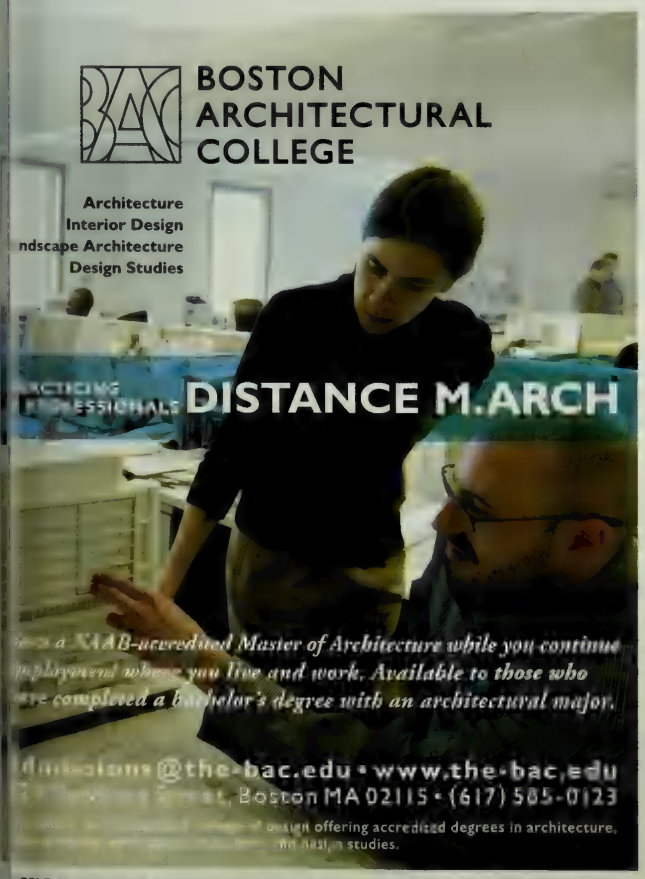
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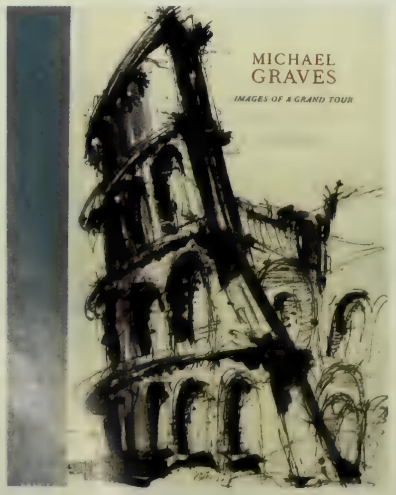


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The Architect's Hand



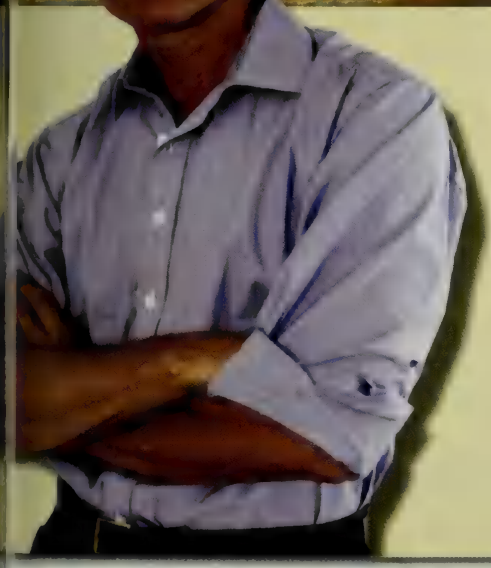
***Basilica of Maxentius, Rome* (pen and ink wash, 1960).**



Michael Graves on the Grand Tour

In spite of the lamentations that drawing by hand is a lost art to new generations of architects virtually ra
on the computer, this artistic pursuit still thrives, if unheralded. Throughout the year, RECORD plans to devo
the end page of each issue to sketches and drawings by those who avow that the hand best helps the cr
mind to analyze and conceptualize architecture. What better way than to begin with Michael Graves, the pr
sion's consummate artist of the late 20th century? As illustrated so compellingly in *Michael Graves, Image
Grand Tour*, by Brian M. Ambroziak (Princeton Architectural Press, 2005), the drawings and sketches that
executed in the early 1960s at the American Academy in Rome attest to the power of the city's patrimon
the Prix de Rome winner. When he drew the 4th-century Basilica of Maxentius in Rome in 1960, Graves r
that it "gave me the courage to continue not only with my analysis of buildings, but also with developing m
in drawing antiquities." In so doing, in this case he employed a pen and ink wash on a sheet of paper, 30 by
inches, which he felt would best render these particular ruins. "Seeing the enormity of those three bays, o
first thought is that this must have been the entire building. However, the structure that springs from the c
indicates the former presence of an even larger, navelike space." *Suzanne Stephens*





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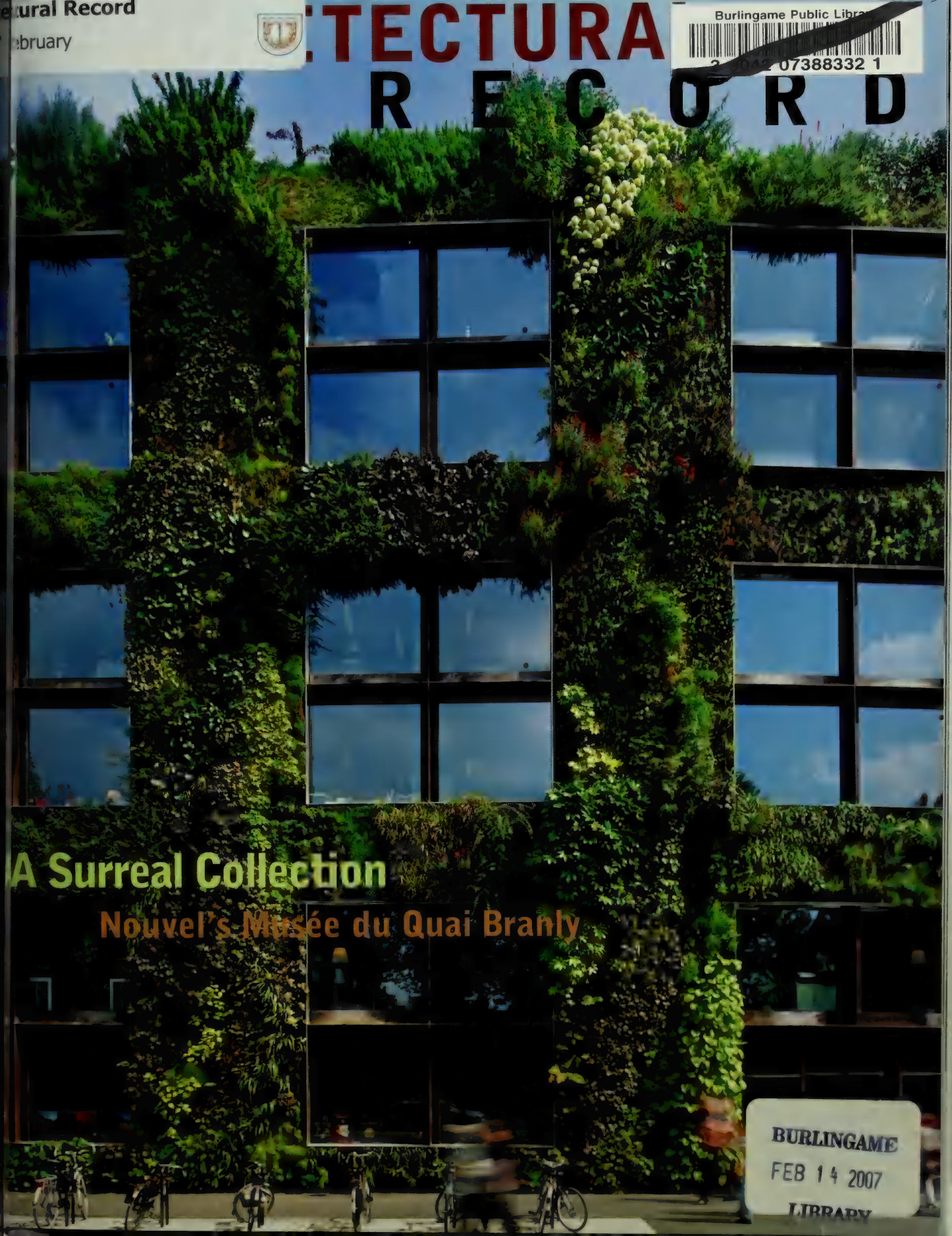


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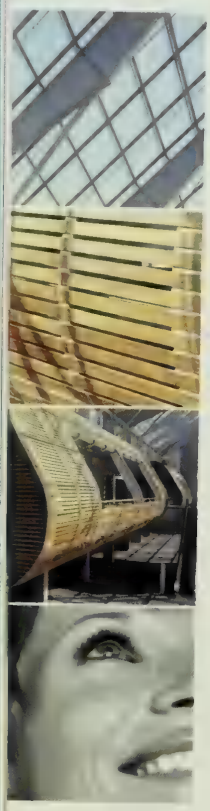
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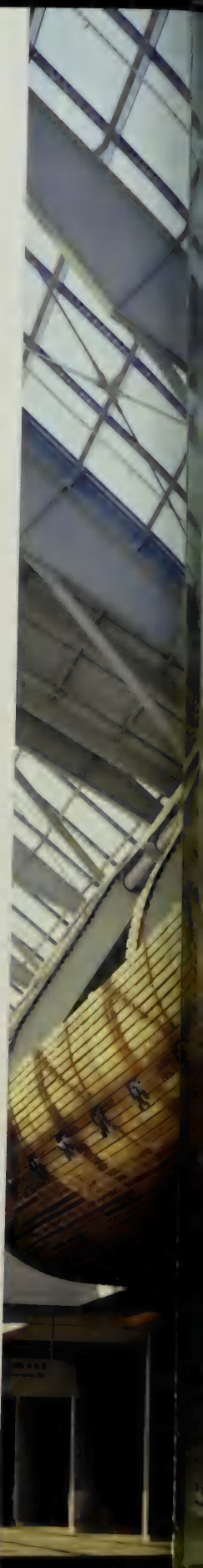
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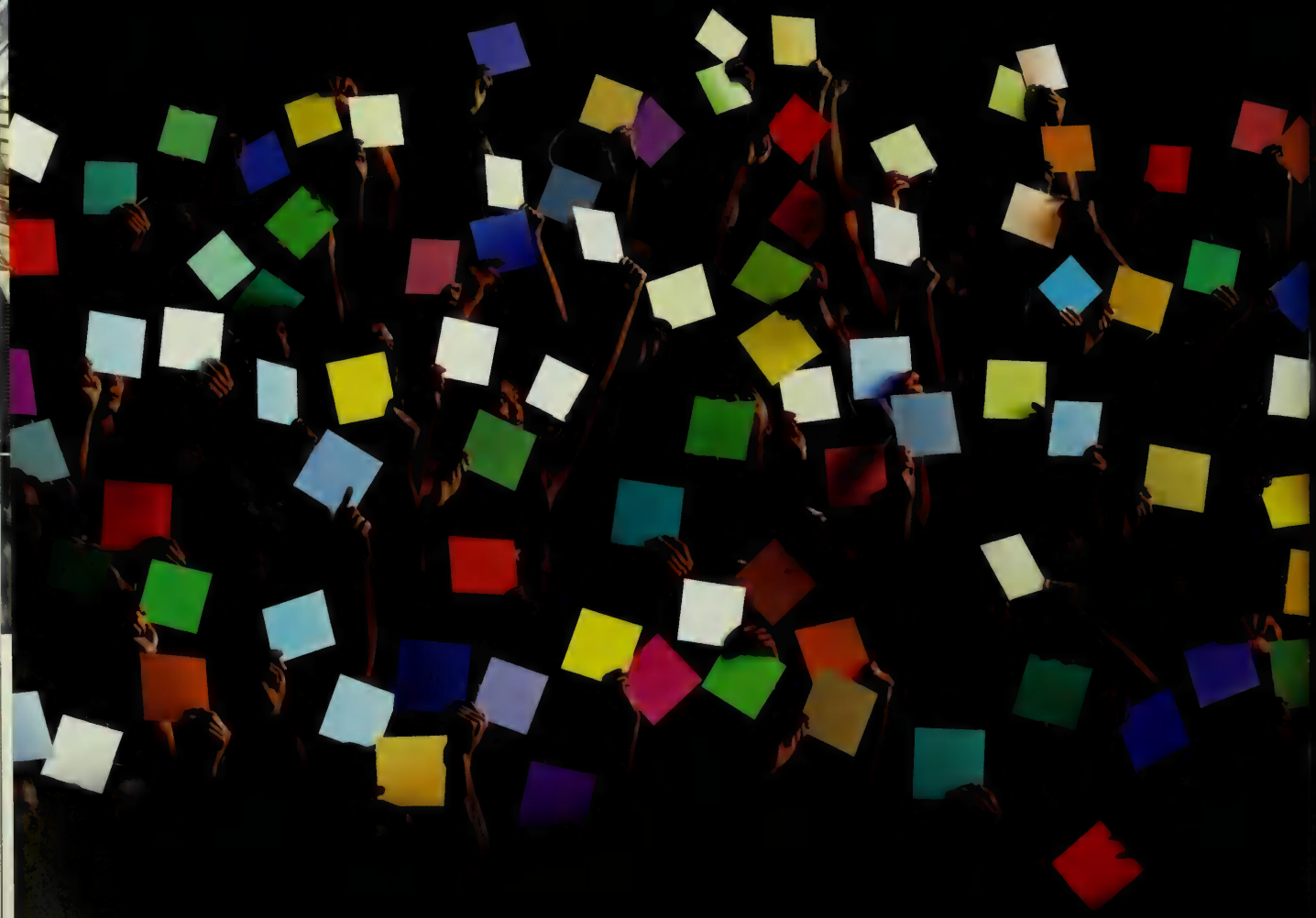
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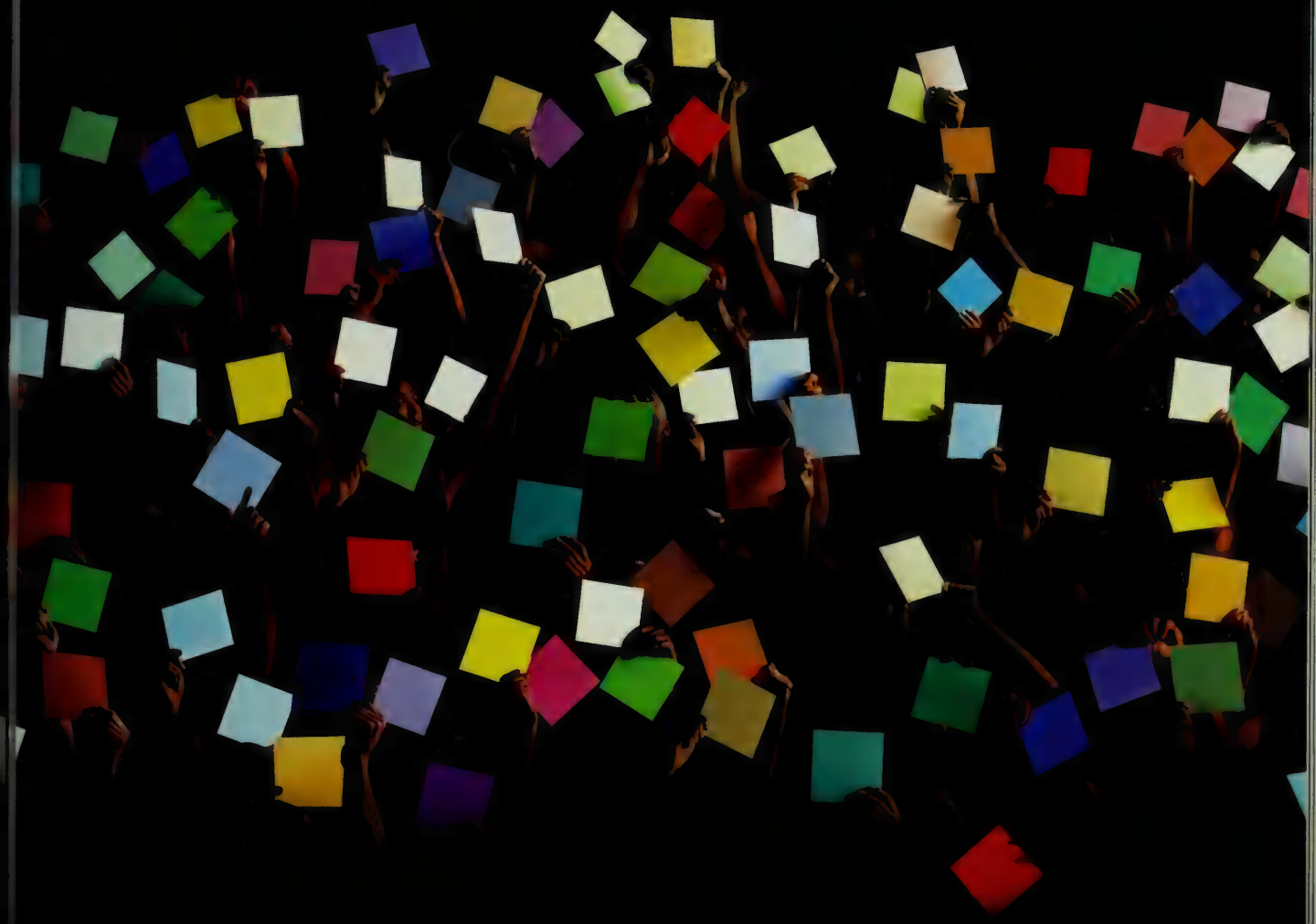
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On the Cover: *Musée du Quai Branly, by Ateliers Jean Nouvel. Photograph by Roland Halbe.*
Right: *Wine shop and tasting room, by Zaha Hadid. Photograph by Roland Halbe.*

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Programmatic complexity lurks beyond a checkerboard skin.

Museum of Modern Literature, *Germany* *by Suzanne Stephens*
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Kanno Museum of Art, *Japan* *by Naomi R. Pollock, AIA*
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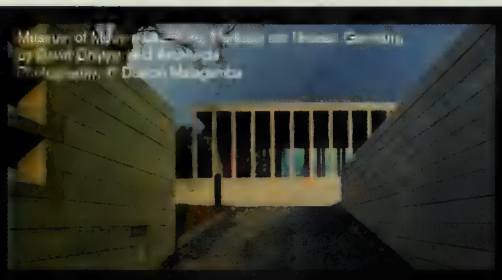
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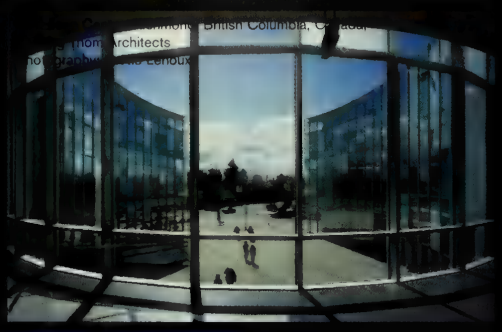
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Project Portfolio: On Display

It's not just museums that are built to showcase objects. Today, as the lines between "fine" art, craft, and objects of manufacture have blurred, it seems that design is the glue that binds, as the following five projects reveal.

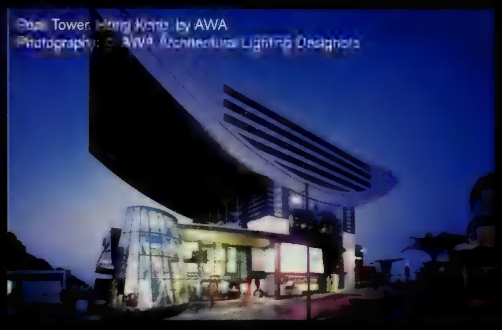


Building Types Study: Shopping Centers

Having assumed many identities during the 20th century, from strip center to mega-mall to festival marketplace, the shopping center, including the featured 11 projects, reflects the values of those who shop there.

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Residential: House of the Month

A raw, modern home of rock and glass by Jesús Aparicio Arquitecto provides a family in Salamanca, Spain, with the perfect refuge that melds with the dry landscape.



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In Design, we feature yet another young firm, PEG office of landscape + architecture, doing interesting and innovative work in Ann Arbor, Michigan. Also, in Work, find out how architects across the globe are showcasing their work in social gatherings called Pecha Kucha Night.



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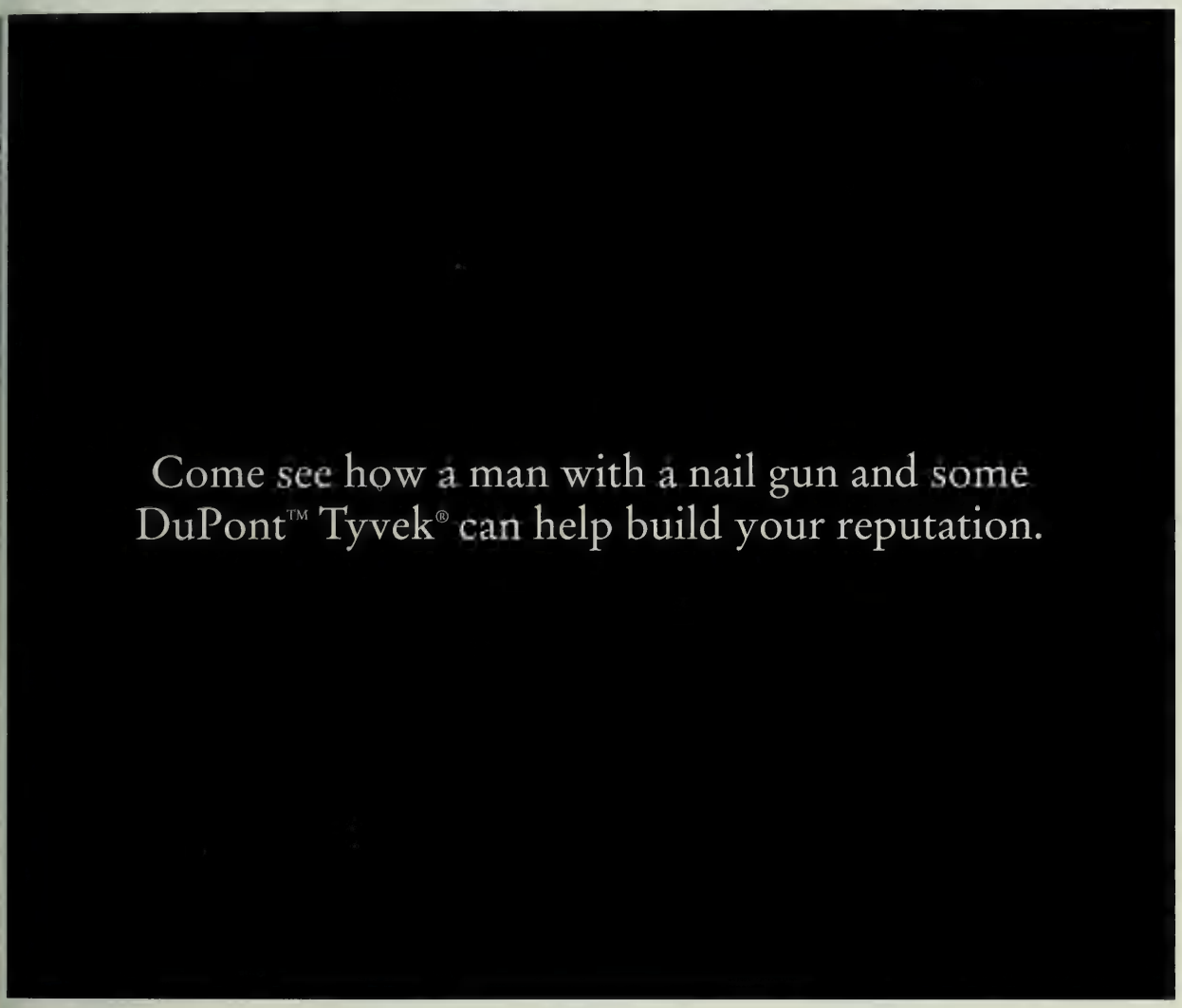
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Editorial

By Robert Ivy, FAIA

For any visitor to Brooklyn in the past 30 years, the future of the area surrounding the confluence of the major streets of Flatbush and Atlantic Avenues has loomed like an unanswered question. There, in what could be sidered the fourth-largest city in the United States, the Long Island Railroad dis- ges in a complex where 11 different subway lines converge, all adjacent to the nidable barrier of the Vanderbilt rail yards. At the heart of what should be rant and urbane, punctuated by the optimism of the 1927 Williamsburgh ings Bank tower, lies a kind of crummy blankness.

Enter the developer. Forest City Ratner Corporation, led by Bruce ner, proposed moving his NBA New Jersey Nets basketball franchise into a new na in the borough, bringing big-time professional sports to a place still grieving loss of the Dodgers in 1957. Moreover, the city's strong need for housing, ether with a resurgence in interest in Brooklyn (spurred in part by Ratner's n investments in the borough), led Forest City to a strategic plan that has erged as the impending Atlantic Yards development project. So far, so good.

Soon residents of surrounding property and their sympathizers began to test the disruption to the urban fabric that the 22-acre master plan proposed. ey decried the loss of low-scale housing in the Prospect Heights neighborhood gentrifying area), the use of eminent domain by a civic authority to block ble streets, and the variation in scale presented in the proposed project.

Their arguments took aim at an ambitious program. As currently con- ved, Atlantic Yards will consist of the Nets arena, 6,430 units of housing that nds market-rate condominiums with affordable housing at a variety of income els, office space, retail, a possible hotel, over 8 acres of open space, and signif- nt infrastructure. When the community's arguments to block the development led to move the state's Public Authorities Control Board responsible for review, uments moved to the courts.

The developer's bona fide desire to bring prestige and credibility to his ject resulted in hiring the world's most prominent architect. Who could argue h his choice for qualified design? Ratner, who burnished his reputation by hir- Renzo Piano together with FXFowle for the New York Times headquarters, ployed Frank Gehry, whose name carries instant recognition with educated diences. The professional team included Laurie Olin, renowned landscape hitect responsible for the ground plane in such New York icons as Bryant Park d Battery Park City.

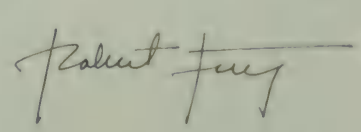
Leaving aside the formidable issues raised by the locals, the questions ing the Atlantic Yards development become classic architectural ones: scale and ion. Gehry's plan for Atlantic Yards, while admirably blending mixed-use inciples and awareness of varying scales, nevertheless imposes a single con- ousness on the urban fabric, and the viewpoint is his own. After a century in which heroic, singular visions articulated by Le Corbusier and others have resulted in violent repercussions, including Jane Jacobs's own, well-accepted urban principles, we question whether one person should be allowed to imprint the city fabric so pervasively, particularly in this most diverse of boroughs.

As currently articulated, Gehry's plan includes 15 clusters of structures as broad-ranging as "Miss Brooklyn," the roughly 500-foot tower anchoring the project on the skyline; the long-awaited Nets arena; and over 6 million square feet of residential towers fronting open space. Illustrations available to the public reveal Gehry's characteristic expressionism, in which sculptural towers line Atlantic Avenue above Olin's parkland. To detractors, it looks like Gehry-land come to town.

Atlantic Yards places the architect at the heart of the borough in the city he has been anxious to build in for a decade (remember Manhattan's pre-9/11 downtown Guggenheim?). Few deny the architect's skill in other large-scale urban projects, such as Los Angeles's Walt Disney Concert Hall (2003); and certain individual buildings or clusters, such as MIT's Stata Center (2004), represent an evident interest in urban planning (now also being played out on Grand Avenue in Los Angeles). However, Atlantic Yards extends this identifiable, particular sensibility in a way we have not seen, at a scale we have not encountered before outside of signature projects such as Rockefeller Center, the 1929 mixed-use development which also filled 22 acres; or Stuyvesant Town, whose 8,757 units recall Le Corbusier's Ville Contemporaine of 1922. Atlantic Yards becomes a kind of experiment that others will have to live in.

As the drama surrounding Atlantic Yards unfolds, the developer will be well advised to tread the fine line between heroic urban planning and monochromatic urban imposition with care. Atlantic Yards will be a richer place by including other respected architects to design individual components of the site, allowing Gehry to focus on projects that will most evidently benefit from his particular skills, such as the Nets arena, or the high-rise structure. He need not design the entirety.

New York needs density, and more housing, but not at the expense of alienating urban advocates who decry closed streets, inadequate affordable-housing options, or imperiled existing residences. Their voices must be taken into consideration. Ultimately, Atlantic Yards will comprise its own city within the city. As Gehry himself has proposed, his large commission can be improved by employing other voices to build on the plans he has laid out to date, adding other sensibilities to the architect's own, layering the new community now in formation with multiple points of view, and enriching the borough and the whole city as a result.



Letters

The nonexistent house
Belmont Hill School respects the issues raised in the article on the Rachel Raymond house [Record Web News, "New England's First Modernist House Destroyed," January 9, 2007]. The school is committed to historic preservation, as seen in the rescue and restoration of a Methodist church from West Thompson, Connecticut, which Belmont Hill brought to its campus some years ago. Prior to purchasing the Raymond house, Belmont Hill hired a respected architectural historian who did a careful study of the property. He concluded that the house had undergone dramatic renovations over the past 40 years, virtually doubling its size and eradicating the features that had distinguished it. While the school respects the concerns raised, the house your magazine references has not in reality existed for some time. If the house had been determined to have significant historic value, the school would not have bought it. Indeed, the property was not listed on any historical register. The photograph that ARCHITECTURAL RECORD ran is more than 70 years old—although Belmont Hill provided contemporary photos.

In the interest of providing a historical record, the school engaged an architectural photographer, had measurements taken of the house, and has offered to have a model made of the original house. Fortunately, other and better-preserved examples of Raymond's work still exist.
—Richard I. Melvoin
Belmont Hill School
Belmont, Mass.

They must be high
I was shocked to learn that the primary complaint of the New York City Landmarks Preservation Commission about Sir Norman Foster's 980 Madison Avenue project was that the building was too tall [Record News, "New York's toniest residents clash over Norman Foster design," December 2006, page 24]. Have they gone mad? This is New York City, the city that invented the skyscraper! If Commissioner Tierney prefers low-rise buildings, perhaps he should move to New Jersey.
—Seth Scott
Via e-mail

In the name of art
I enjoyed Robert Campbell's collection of quotations in the January 2007 issue [Critique, page 37]. I thought, however, that more appealing than Picasso's statement that "Art is what nature is not" would be Dante Alighieri's assertion that "Nature is the art of God" (*La natura e l'arte di dio*). Architects must seek harmony in the world. For that we cannot be smug and self-satisfied. Let us offer guidance to that end.
—Frank W. Riepe, AIA
Sudbury, Mass.

Paris planning revamped
The riots in Paris last year exposed many of the social and economic problems that plague the city. I was pleased to read about some of the new building strategies employed by the Paris social housing authorities [Record News, "In wake of Paris riots, public housing authority builds more, and better, projects to stem disaffection," January 2007, page 26]. The Batignoles Planchées project is very admirable. It reflects many elements—varied building heights, more vegetation, and a variety of materials—that I would have enjoyed seeing during my visit to Paris in 1999. The addition of new firms to public housing competitions will hopefully encourage more diversified projects instead of the comfortable repertoire.

From a planning point of view, these methods seem to be a good beginning; however, I would like to see more public participation. It is good practice to involve residents during the planning stage of projects that directly affect them. Not only does it encourage teamwork, but it also helps to break down some of the barriers between the public and policy makers.
—Adrienne Batson-Cooper, Assoc. AIA
Brooklyn, New York

Expos that could have been
Your December 2006 news article regarding the 2010 Expo neglects to mention that the original competition winner for the U.S. pavilion at the 1992 World Expo in Seville was a beautifully realized interpretation of "America the Beautiful" by Antoine Predock. Subscribing to Mr. Predock's view that "architecture is landscape in drag," the pavilion featured a hydraulically operated IMAX theater in the form of a "purple mountain majest[y]," literal amber waves of grain, a "fruited plain" composed of a living apple orchard, and water features leading the visitor from "sea to shining sea." Unfortunately, this spectacular scheme, which deftly embodied both the power of the American landscape and the technical prowess of the U.S. industrial engine, was never realized. Perhaps if Mr. Predock had included a giant electronic billboard featuring an endless stream of advertising, not only would the pavilion have been built, but its symbolic message might have been even more to the point.
—Mark Donahue, AIA
San Francisco

Measured sustainability
The proponents, advocates, designers, and owners of green or sustainable buildings and spaces describe their size, construction cost, and how beneficial they are, especially from an energy or emissions perspective. However, they almost never provide factual measured data to support their claims, even when those data are or can become readily available. Before publishing stories on those buildings, editors should get agreement to print the following facts.

If the facility has been in full operation for at least one year, the article should include monthly metered energy-consumption data for 12 consecutive months, so readers can make comparisons with their own or comparable facilities. If the facility has been in operation for less than one year, the building owners should agree to provide editors with metered energy-consumption data for 12 consecutive months within two years, which will be later published. Otherwise, a statement should indicate that the data were not provided. A simple table of the factual metered data, along with the size in square feet should suffice. The article should also clearly identify any rebates, subsidies, or unique circumstances that might limit broad transferability or applicability of the technologies involved, and evidence that the facility is providing the environmental conditions and functionality intended.
—Larry Spielvogel, P.E.
King of Prussia, Pa

Corrections
A December 2006 news item, "Students fashion new home for Lower Ninth Ward" [page 28], incorrectly noted one of the participating schools in a rebuilding project. It was Montana State University, not University of Montana.

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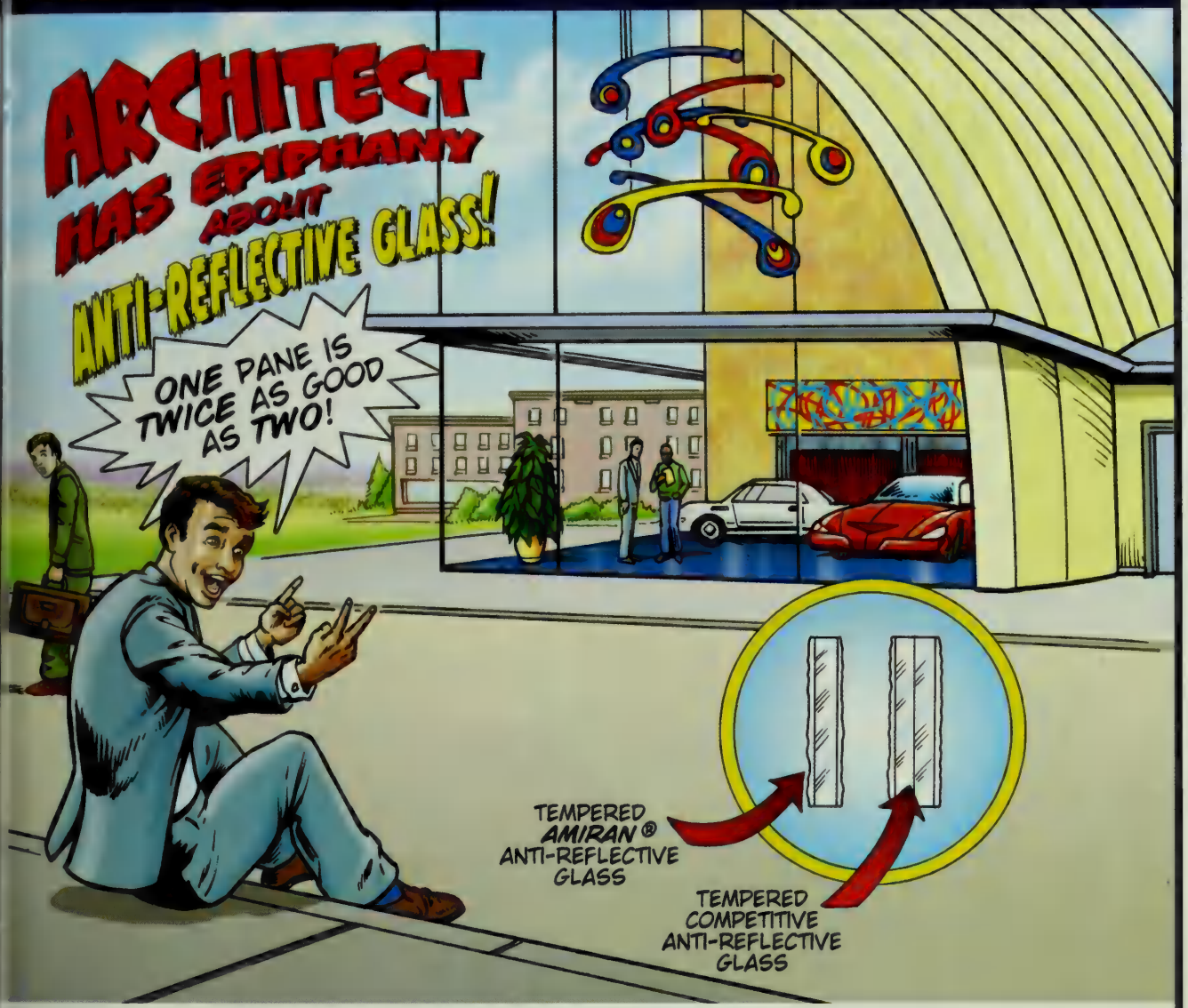
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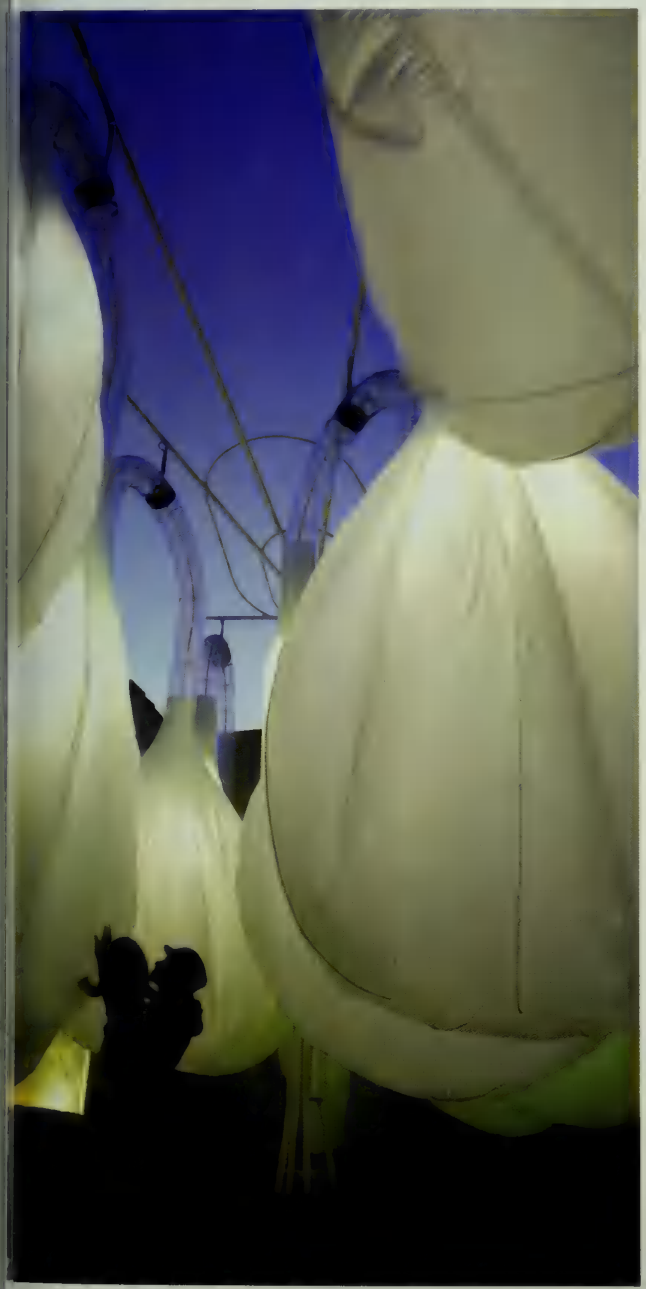
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Record News

Highlights

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p.28 **Cities mandate green development**
p.30 **Atlantic Yards cleared for takeoff**
p.32 **Palm Springs goes neo-Modern**

pace invaders: Los Angeles installation inflates, titillates



the Materials & Applications installation *Bubbles*, Angelenos push one of e giant volumes to trip the mechanical switch that deflates it.

Jenna Didier and Oliver Hess's front yard in Los Angeles's Silver Lake neighborhood has seen a host of spectacles. In 2002, Didier stretched fabric over her home's facade in asymmetrical, cascading strips; provocative displays that followed included a gold-tinted Mylar vortex and a bamboo bridge traversing a small body of water that bubbled and surged beneath passersby [RECORD, August 2006, page 55].

These aren't cerebral pranks à la the 1985 film *Real Genius*. Rather, they are the experiments in art and design that Didier and Hess champion as the founder and technical director, respectively, of Materials & Applications. The nonprofit organization, which is funded by Didier's fountain design company and fueled by the efforts of volunteers, turns over its outdoor space to twice-yearly juried installations that stress innovation at all costs.

Bubbles is the latest effort. Sixteen rip-stop nylon inflatables are tightly packed in the 25-by-50–foot space. The volumes operate in pairs: When a visitor bumps or pushes a bubble, it deflates, channeling its air to a mate that dangles higher above the courtyard. The air exchange permits passage into the courtyard, and moves the adjacent pair of bubbles to spark a chain reaction: "A person comes in like a virus," says one of its creators, architect Michael Fox, principal of FoxLin.

When Fox and his friend Axel Kilian first discussed entering a proposal into the Materials & Applications submission pool, the vision was not quite so clear. "At the time, it was really to look at a space that could be completely consuming and that could be customizable in scale, in all axes," he says. "But we weren't necessarily thinking of bubbles."

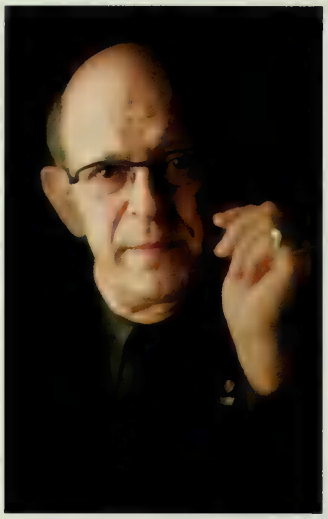
As Fox and Kilian slowly accrued teammates—first Fox's former student Scott Franklin, then his partner Juintow Lin—the concept and its means of realization slowly evolved. "In old renderings" Fox notes, "we have these balloons floating around, and we left the top off."

Now the installation has a cast of young thinkers and makers to its credit, including the design firms FoxLin, NONDesigns, and Brand Name Label, with support from Kilian and Darius Miller. And the installation itself is correspondingly sophisticated, despite a miniscule $20,000 budget. The bubbles suspend from a 30-foot-tall steel structure, and their interactive behavior is generated by internal polyethylene "seeds" that house a mechanical switch, internal lighting, and air filter. Insightful details include the 30-degree angle that activates the mechanical switch (so that a gust of wind doesn't trip the installation), and Velcro attachments that release the bubbles when visitors turn rambunctious.

"This project, although an exhibition, proves a lot in terms of interactive design at an urban scale," Fox says. Besides demonstrating the worthiness of the technology, it's also a springboard for talent. Indeed, Fox notes, "the project is important to us because while we are fairly well known in academic circles for pioneering interactive architecture, our primary goal as a professional office is to build architecture." *Bubbles* is open to the public through February 15. *David Sokol*

2007 Topaz Medallion winner Lance Brown illuminates the lessons of destruction

Change is anathema to many people. Yet architects and urban planners have an intense relationship with it: Hoping their designs will outlive them, they must often destroy or rebuild the work of those who have gone before them. Lance Brown,



FAIA, design coordinator at the City College of New York's School of Architecture, Urban Design, and Landscape Architecture, hopes that his students get over this paradox.

"The one thing we can be sure of is change," Brown says. "The bigger issue is that we make sure our work leaves places not only as good as, but better than, we found them."

This year's Topaz Medallion winner, Brown has spent four decades studying how cities respond to change, often in its most unexpected and destructive forms. He encourages students to learn by comparing the recovery of seemingly disparate places such as European cities after World War II and New York's battered South Bronx. While different forces rendered damage to these cities, he says, the need to rebuild is universal. And while no fix is permanent, the best urban planners can do is make the wisest choices. Brown also practices what he preaches. He maintains a small design studio and consults on planning groups, including New York New Visions.

Brown believes that buildings rarely exist in a vacuum and therefore must respond to conditions around them—something he's learned firsthand through his work in Lower Manhattan. "I teach my students to try to see the whole, rather than pieces extracted from the whole," he explains. "Everything they will do is a back-and-forth with the original conditions of a site."

This is a timely message, says Brown's colleague and one-time Princeton student Douglas Kelbaugh, FAIA, dean of the University of Michigan's Taubman School of Architecture and Urban Planning. "The profession is racked between two disparate tendencies: either to plop down a figural object by a star chitect, or a neotraditional design that is overly nostalgic," he explains. "We can't continue to build cities that aren't wholes greater than the sum of their atomistic parts. Lance is about integrating and connecting parts of the city, small and large."

Although Brown's teaching and design work focuses on disaster-stricken cities, his experiences leave him feeling optimistic. "It's very hard to kill a city," he says. "People have a profound desire to congregate, and the city is the place where that interaction takes place. So long as the spirit of communication and congregation brings richness to our lives, we will strive to make the places where we do that the best they can be."

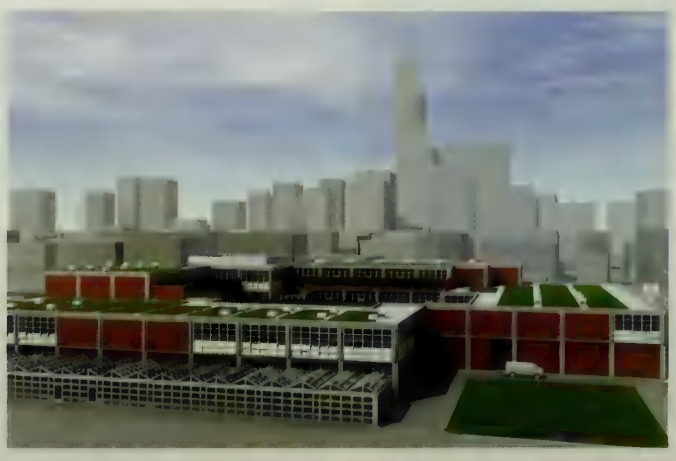
The AIA will present Brown with the Topaz at its annual convention in May. *James Murdock*

With homeless facility, Stanley Tigerman strengthens his stand against elitism

Judging from the burgeoning of Architecture for Humanity chapters, the architecture profession is reaching out to those who can least afford but benefit most from design services. Chicago's Stanley Tigerman, FAIA, qualifies as one of the forefathers of the movement. "Designing houses for the rich—that's not interesting. It's greater payback to work for those who need me than for those who want me," he says. "Beauty isn't just the reserve for the rich."

Soon enough, some of the poorest Chicagoans will get a chance to enjoy Tigerman's work. Pacific Garden Mission, the country's largest and oldest rescue mission, has retained Tigerman McCurry Architects to design its new headquarters in the South Loop. The 156,000-square-foot building will house more than 1,000 homeless people in separate dormitories. It will feature a landscaped courtyard atrium, as well as energy-efficient greenhouses that will provide organic produce to the residents and function as a job-training site. The new facility, aiming for Silver LEED certification, will also include a barbershop, beauty salon, chapel, gymnasiums, and a 600-seat auditorium. Tigerman discounted his fee for the $25 million project, which should be complete this fall.

Although designing a homeless shelter is the first such venture for Tigerman in his 56-year career, he has always put social causes above lucrative commission. In 1993, Tigerman and interior designer Eva Maddox cofounded Archeworks, an alternative design school in Chicago that trains students in the practice by partnering them with nonprofit clients. In his 2005 book *Design Denied: The Dynamics of Withholding Good Design and its Ethical Implications*, Tigerman explored the ethical ramifications of architecture's exclusionary price structure.



Tigerman's design for Pacific Garden Mission should be realized by fall 2007.

Meanwhile, designing for the homeless has not only brought Tigerman closer to social causes, but also to those he believes his architecture is meant for. "You think deeply about what it means to be homeless," he says. "Architects need not be distant from those whom we purport to design for." *Violet Law*

(Go to www.archrecord.com to read an interview with Tigerman.)

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Cities begin requiring private developers to go green—with and without LEED

In the absence of federal legislation, ecologically minded cities are taking action to ensure green building within their own borders. Among the cities included in this rising trend, Salt Lake City, Washington, D.C., and Boston have passed some of the most aggressive sustainability regulations to date.

For Salt Lake City, going green isn't a wholly new idea; an executive order has required new municipal buildings there to achieve LEED certification since 2005. This past November, the Salt Lake City Council voted unanimously to adopt an ordinance raising the requirement for new municipal buildings to LEED Silver status; it also decided to mandate private developers who erect buildings bigger than 10,000 square feet using city funding to achieve a LEED Certified rating.

Soren Simonsen, AIA, a partner at Cooper Roberts Simonsen and member of the Salt Lake City Council, attributes the legislation to Mayor Rocky Anderson's green agenda and grassroots-level community awareness. "There's been a lot of interest by professionals in the city to develop these kinds of programs," Simonsen says.

Similarly, a bill passed in Washington, D.C., in December places restrictions on private developers. Using a unique, phased approach that starts by requiring all new District-owned projects to achieve LEED certification, the city council requires that by 2009, any building receiving more than 20 percent of public financing will have to achieve certification. Every commercial building over 50,000 square feet will also have to meet that standard by 2012.

The D.C. Building Industry Association (DCBIA) raised concerns over the initial version of the bill, which had imposed mandatory standards on private developers by 2008 and LEED Silver ratings, but it took greatest issue with the lack of incentives. The conflict prompted the bill's initiator, Councilman Jim Graham, to create a task force that produced the phased approach, as well as provisions like grants and expedited building permits that take effect in 2010.

DCBIA president Charles Barber says the terms of the compromise "gave a number of developers comfort." Graham's spokesperson Alan Heymann calls the collaboration one of the major successes of the legislation: "You see a bill regulating an industry, and the industry is taking part in that regulation process and coming out at the end of that process with an emphatic 'Yes, we support this.' "

"THE DEVELOPMENT COMMUNITY WAS SAYING TO US, 'WE DON'T CARE WHAT THE RULES ARE AS LONG AS THEY'RE CLEAR.' "

Incentives for private developers are in the works in Salt Lake City, too. Simonsen says that, as a result, legislation will expedite rather than stymie development. "We've had conversations with the development community," he says, "and the feedback that we're getting is, 'If you give us the right incentives, we'll do this.' "

Despite the lack of any major opposition to the legislation, there are still reservations about what will happen next. If LEED continues to be the standard for regulating private green building, its evolution will become ever more urgent. Like the DCBIA, "Developers all over will be concerned about how this is done and how it affects the business of construction," Barber notes. "If translating what is a voluntary program overwhelms the U.S. Green Building Council (USGBC) and becomes too costly, that's a problem."

Simonsen doesn't expect such pitfalls in transforming the voluntary system into a mandatory process. "It's not unlike the way that building codes and accessibility guidelines have developed over the past 50 years."

Cities' use of the LEED system can help the USGBC and LEED grow, Simonsen adds: Salt Lake City initially questioned whether or not they should modify the LEED system to their region by adding extra points for issues like water conservation. The city council decided against the move for the sake of simplicity and consistency, but provided material from their investigation to the USGBC. "We've been very encouraged that [the USGBC] is taking regional considerations into account as they evolve LEED standards. It wouldn't surprise me if in the next two or three years there will be a version of LEED that will allow us to emphasize things specific to the Salt Lake area," Simonsen says.

Yet locally modified green building standards are already cropping up and beating the USGBC to the punch. Citing the cost and time-intensive nature of LEED certification as negative factors, the city of Boston adopted its own green building standards into the municipal zoning code in early January. Because the city of Boston abides by the state building code, the new standards were made part of the zoning code, which has the added benefit of front-loading environmental concerns. "The fundamental issue all along has been getting people t commit to green building up fro says Bryan Glascock, director o the city of Boston.

The new standards apply t all new development over 50,00 square feet and use LEED as a base, tacking on four Boston-specific points for groundwater recharging, public transit, histori preservation, and easing the bur den on the city's power grid. "I think that our modifications of th LEED system have been minor a may even be characterized as customizing LEED to better fit th Boston area," says John Dalzell, AIA, a senior architect with the Boston Redevelopment Authorit Projects are required to achieve a LEED Certified equivalent, but are not required to go through th USGBC's certification process. Compliance is verified by the pro ect team and by local city officia

Unlike Salt Lake City and D.C Boston does not offer incentives high achievers. Although there is residual resistance from some, m developers only want clarity. "The development community was say to us, 'We don't care what the rul are as long as they're clear.' " say Glascock. "For better or for worse the LEED checklist provides that."

Glascock, like Simonsen, believes that locally modified LE systems are a way forward. "If w need to tweak LEED to address our specific issues, I don't see th as undermining LEED at all. In fa it may even enhance things," he says. Dalzell points out that loca modified LEED systems may be the only way, in fact. "The trend right now that is that there's suc disappointment in federal action on the environment that we're s ing cities and states leading the way," he says. "I don't think that we can expect the federal gover ment to be responsible in these areas." *Amanda Webb*

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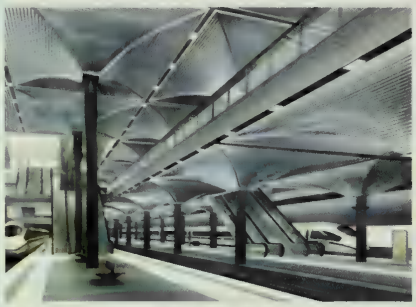
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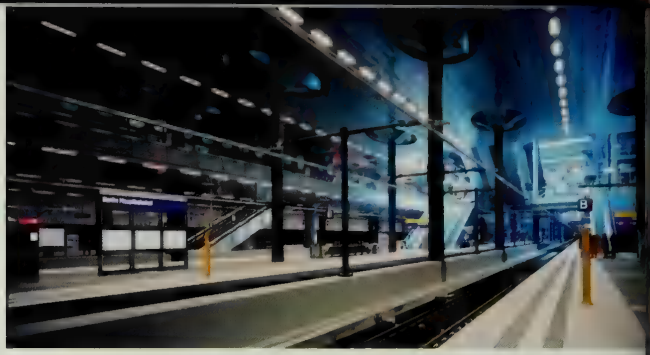
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Derailed design may get second chance





The original ceiling concept (left) was redesigned for construction (top).

The Lehrter Train Station in Berlin, the flagship for the German rail company Deutsche Bahn (DB), completed last May, may already get a massive renovation if a judge's November decision holds.

Well-known German architect Meinhard von Gerkan and Jürgen Hillmer, a designer in his firm, sued DB claiming that their copyright for the building was violated. According to Hillmer, the railway company did not use the original plan for the subterranean-level ceiling, which included barrel arches over the platform hall of the tunnel—and instead installed a flat suspended version that "razes the spatial structure and disfigures the main station."

There is on average one architectural copyright case taken to German courts each year, according to Tillman Prinz, head of the Federal Chamber of German Architects, the licensing and advocacy group for the industry. He estimates that only one-fifth of contemporary buildings would qualify architecturally for copyright status.

In the case of the Berlin terminal, Prinz concurs with von Gerkan's view. "DB wanted a palace for the main station, so they wanted a fabulous design and hired a famous architect. If DB wanted this architecture, they can't change their mind and say they want a regular ceiling." The terminal was constructed over 10 years, for nearly $900 million. According to DB, it opted for the ceiling created by Karl-Heinz Winkens of the Berlin-based firm Winkens Architects after von Gerkan's design could not be built for the allotted price tag. Von Gerkan's firm was under the impression the ceiling was approved, and only discovered the design was not going to be used "by accident," Hillmer recalls, when a copy center sent plans to the firm. Even when the cost of the original ceiling was calculated to be higher than expected, the designers still presumed a green light, and that they "would save expenses in other parts of the interior design." After discovering the proposed change, the firm tried negotiating an agreement with DB for more than 15 months. Hillmer says none of their proposed solutions were accepted.

DB will appeal the court's dec sion, although there is no specific timeline for doing so. And while the company would not confirm the rumored $40 million cost to rip out the ceiling entirely, a spokesperson did concede that the court-ordered project's noise and mess would prove a significant inconvenience to passengers. More than 300,00 people and 1,000 trains pass through the station daily.

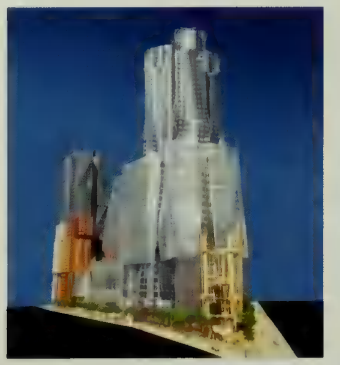
"What we hope for is another solution. Something that is financia feasible and aesthetically correct," Prinz says. "The court weighs the architect's concerns versus those o the Deutsche Bahn and, of course, an important point in all of this is th financial concerns." *Audra Shanle*

Green light for Gehry in Brooklyn

With the recently completed IAC/InterActiveCorp.'s headquarters, Frank Gehry, FAIA, has finally made a mark on New York City. Now he is about to make a bigger one. In December, the state's Public Authorities Control Board gave unanimous approval to plans for the Atlantic Yards, a $4 billion-plus Brooklyn development that is expected to contain more than 6,400 apartments, a new arena for the Nets basketball team, and several hundred thousand square feet of commercial space. Gehry will design every building on the 22-acre site.

The first phase of the development, containing the arena and the residential tower, dubbed Miss Brooklyn, would be completed by 2010. Renderings released by developer Forest City Ratner (FCR) show upright structures alternating with angled "signature" structures, which recalls Gehry's Fred and Ginger, the Prague building with erect and curving elements, on a vastly larger scale.

Indeed, that scale—which involves inserting the approximate square footage of the old World Trade Center into a site just one third larger—was at the heart of opposition to the development, with some critics calling neighborhood-friendly elements, like a giant "front stoop" and glass-enclosed public atrium, Trojan horses. Now the project faces at least two lawsuits. One was brought by residents challenging the city's right to use eminent domain to acquire their properties. The other contends that rent-stabilized tenants of buildings on the site cannot lose their leases without the approval of the New York State Division of Housing and Community Renewal. The lawsuits are likely to delay construction by at least a year, though FCR has already begun infrastructural work.



In the meantime, opponents of the plan were able to wrest some last-minute concessions from FCR president and C.E.O. Bruce Ratner. The height of Miss Brooklyn was reduced, from 620 feet, so that it wouldn't overshadow the neighboring 512-foot Williamsburgh Savings Ba Building, Brooklyn's tallest building.

Ratner, who had already agre to include more than 2,000 afford able rental units in the project, has also promised to build 1,000 afford able "home ownership units" on or near the site, and to spend $3 milli to improve parks around the projec

But, at least to hear Gehry tell the protesters had more luck char ing Ratner's mind than he did. On several occasions, Gehry has told reporters that he believed the proje would be more successful if parts were farmed out to other architect permitting a variety of styles more akin to an authentic cityscape; a spokesman for Ratner said the developer had no comment. Gehry has also said that the project, with its vast impact on the city, "keeps me up at night." *Fred A. Bernstei*

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In Palm Springs, a design-savvy real estate frenzy spawns a new wave of Modernism

Once upon a time in the American desert, Modernism could build its dream home. Ingenious architects like John Lautner, Albert Frey, and William Cody made an oasis in the sand, crafting affordable, environmentally appropriate structures from glass and stone, outdoor living areas, and butterfly roofs. While the movement affected even quotidian structures—think Eichler homes—the projects built in the greater Palm Springs area, like the Case Study Houses, epitomized Modernist architecture's responsiveness to climate, demographic changes, and individual comfort.

Marmol Radziner carries on the midcentury legacy. Besides restoring desert classics like Richard Neutra's Kauffman house, last October the Los Angeles firm cofounded the development company Skyline Modern, which has since listed two 1,200-square-foot prefab houses for presale in Joshua Tree, California, and is assembling parcels for three more units. Based on a prototype called Desert House, the Skyline Modern home provides clear links to the outdoors like its predecessors, but also updates tradition with recycled steel, certified sustainable wood, a solar electricity upgrade option, and other green elements. The basic plan would qualify for LEED certification should the buyer apply for it.

Responding to a surge of architecturally savvy house hunters, the greater Palm Springs area is awash in new construction that, like Skyline Modern's project, looks uncannily related to the Modernist classics. Office of Mobile Design is developing a 3-unit project next door to John Lautner's Desert Hot Springs Hotel. Due to open this spring, its courtyard and color palette are strikingly familiar—although Lautner would rub his eyes in disbelief at the robot-manufactured prefabricated components, or finishes like kirei board, which is made from waste sorghum stalks.



In Joshua Tree, California, Skyline Modern will build prefabs designed by Marmol Radziner (above). Tropicana in Palm Springs (left) helped spark the area's neo-Modernist trend.

The list grows. Architect Sean Lockyer's three-home subdivision near Palm Desert broke ground in January. Modern Living Spaces is currently building the 50-home B-Bar-H Guest Ranch in Desert Hot Springs, which deploys five plans by developer/architect Mark Bodon. And in one of the older examples of this phenomenon, the real estate firm Architectural Properties seduced Modernist Donald Wexler out of retirement to design Tropicana in Palm Springs. These four structures are updated versions of Wexler's 1950s post-and-beam homes.

But Palm Springs is not the same as when Wexler got his start—a small resort town that had only four architecture firms and plenty of open space. Today the Cochella Valley is one of the fastest-growing areas of California for development, and while new construction sprouts on the outskirts of Palm Springs, infills or teardowns are common sights within its borders. Wexler, who sits on the city's architectural advisory committee, is concerned about preserving the environment that drew his generation to the desert in the first place. "Everybody is trying to get more of the land than should be developed," he says. "Open land is so precious. I hate to see it overbuilt."

Some of the new projects aim to conserve breathing room. Palm Springs Modern Homes plans to build 1,000 units of housing over the next decade, mostly within a dense condo format. Meanwhile, Contemp Homes is working with architecture firm O'Donnell + Escalante to keep square footage down. Once crews break ground on The Alexander Country Club, The Alexander Vista and The Alexander Village this summer, they'll use elevated roofs and abundant glass to give 1,400-square-foot freestanding houses the illusion of space as endless as the desert itself. *Dianna Dilworth*

Kling and Stubbins merge into a top-10 mega firm

After a three-and-a-half-year "affiliation," as of January 1 the venerable firms Kling and The Stubbins Associates have merged into KlingStubbins. The combined firms employ more than 500 people in six offices, making KlingStubbins one of the top 10 American design firms by size.

Intertwining distinct firm cultures is a key issue in design-firm mergers. In the case of KlingStubbins, managing director Scott Simpson, FAIA, suggests that a positive attitude is essential: "More value accrues when the cultures are slightly different: Each firm brings something unique to the table," he says. A shared focus on high-tech research labs is considered the "hinge" that will enable the two firms to operate from a common set of values. That Stubbins has hospitality experience, unlike Kling, and has done more higher-education and health-care work, is expected to broaden both teams' horizons.

Simpson characterizes the new organizational structure as "responsible entrepreneurialism." The branch offices have the freedom to be creative and proactive, yet they are under the umbrella of a national brand and network. "We might be a six-office organization, but it's more like one house with six rooms."

Achieving a critical mass deemed necessary to be competitive on complex projects, and increasing geographic reach, drove the merger. "With market sector and geographic diversity, staff will have greater opportunities to work on intriguing projects," adds Brad Fiske, AIA, director of design. Moreover, a mega practice's economies of scale in HR, IT, finance, and risk management will fully support investment in BIM technology and integrated practice.

The original founders of their own independent practices, Vincent G. Kling, FAIA, and Hugh A. Stubbins, FAIA, undoubtedly would have been pleased that their design legacy is extending to the 21st century, and in a very rapidly evolving practice environment. Indeed, both namesakes were known for embracing technical innovation, and the merger promises to secure that legacy. *Andrew Pressman, FAIA*

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adame Tussauds by ?oTo Architecture

goes against all historical guidelines," says chael Rotondi, FAIA. The architect, principal of To Architecture, is referring to his firm's design the new Madame Tussauds wax museum in llywood, California. Squeezed onto a lot next Mann's Chinese Theatre, Rotondi calls the namic new building a "dance partner" to the goda-shaped Mann's, rather than a parrot.

The 66-foot-tall building is a U-shaped block glass and concrete applied with a sloping el-tube facade. Flangelike stairwells will fur- er activate this surface, as will approximately 00 LEDs that, embedded in the steel tubes, l provide signage. Inside, 45,000 square feet read over three floors will contain space for nibitions, offices, and a semicovered rooftop race. Located at Hollywood Boulevard and



Orange Drive, a two-level, 125-space underground parking garage will serve Angelenos, while pedestrians (read: tourists) can snap memories in the 4,000-square-foot public plaza.

RoTo has joined with Eureka, California–based John Ash Group Architects for the $55 million project, which is the first West Coast branch for Madame Tussauds, as well as its first new building. The museum is expected to break ground in late May 2007, and open by the third quarter of 2008. More than half of the budget is designated for a different kind of parrot: life-size wax replicas of local celebs. *Tony Illia*

PUR headquarters by Pfau Architecture



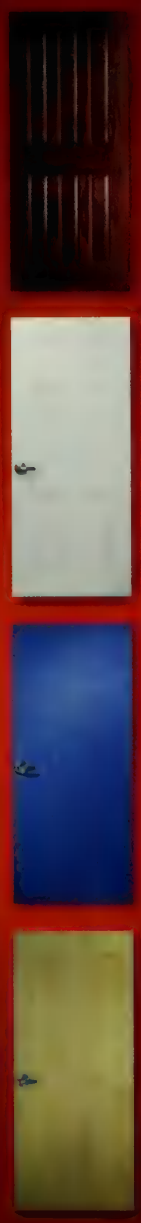
San Francisco, where neighborhoods organize gainst development without a blink, the 3,200- ember organization SPUR invites substantive bate about the subject. It wasn't always so. When e group was founded in 1959, it was closely gned with the San Francisco Redevelopment gency; indeed, SPUR stood for "San Franciscans r Planning and Urban Renewal." But as activists me to refer to urban renewal as "poor-people moval," the organization changed its name to San ancisco Planning + Urban Research Association nd distanced itself from the redevelopment gency. The think tank now champions broad- sed planning and good government policies. nd it has become one of those rare places where evelopers, business leaders, politicians, planners, nd community activists actually meet to disagree.

When SPUR's tiny, overcrowded offices near nion Square could no longer contain so much alogue, the organization entered into the devel- pment game itself and decided to build a ermanent home downtown. The future four-story ome claims the Yerba Buena Center as a neighbor, but unlike that controversial redevelopment project, SPUR has met no community resistance.

SPUR hopes the new, 14,000-square-foot headquarters will draw on program elements from other urban centers, such as New York's Center for Architecture, Chicago's Architecture Foundation, and Paris's Pavillon de l'Arsenal. "This is actually part of an international movement of urban centers," explains Diane Filippi, director of the Urban Center. In addition to enlarged offices, the new building will feature an exhibition area and library, and meeting spaces to host more than 200 ongoing programs.

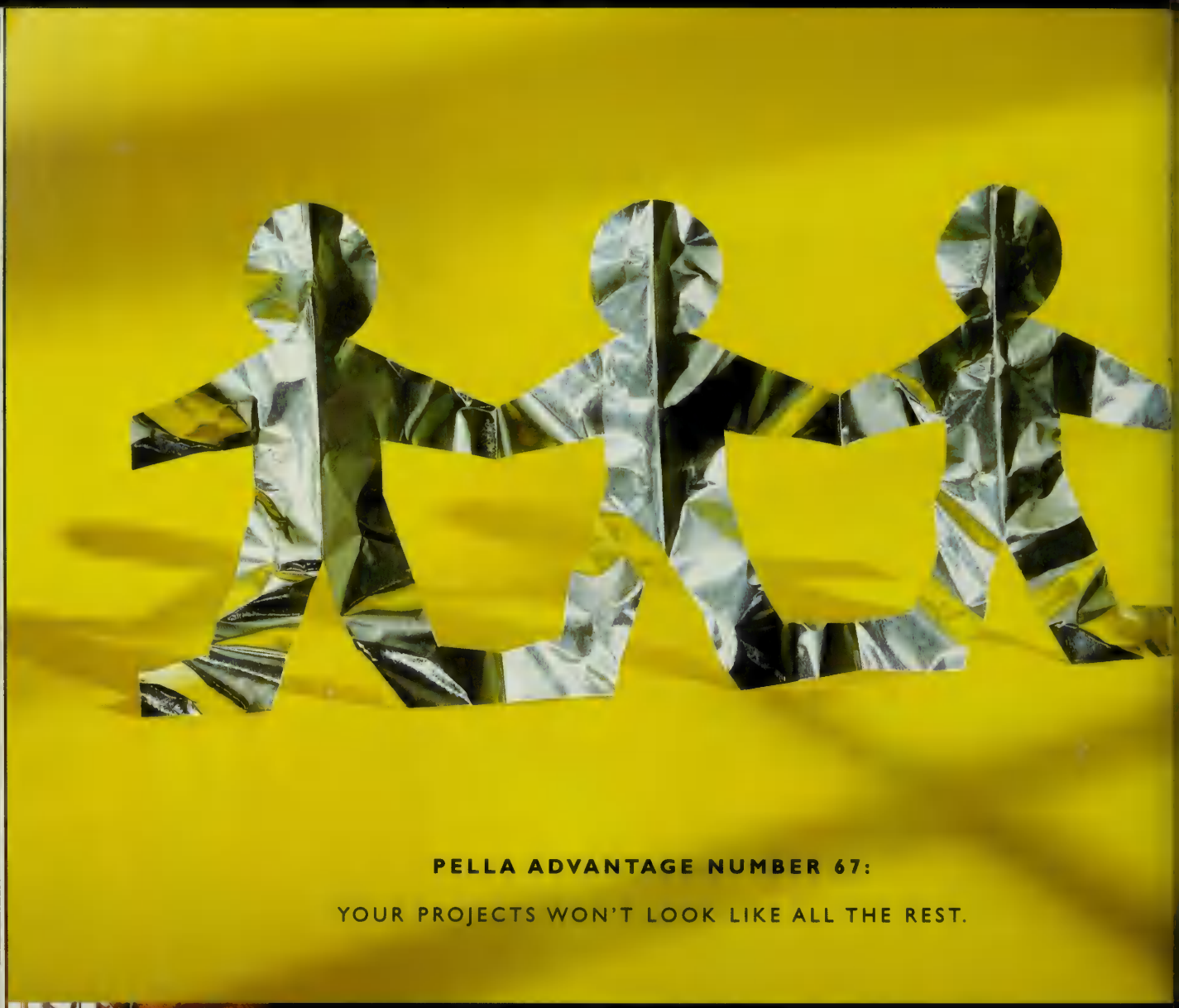
Peter Pfau, AIA, was selected for the job in part because he is seen as a leader of progressive architecture in the region, and for his extensive experience with nonprofits. In the joint venture Cee-Pfau Collaborative, he designed the Lesbian Gay Bisexual and Transgender Community Center, and has been solely responsible for several kinds of arts and education facilities, and a range of housing types. The Mission Street facade of the new Urban Center will be an attractive collage of aluminum shading devices, glazing, and a Moeding clay tile rain screen. The design reads as transparent, symbolizing the openness and neutrality of SPUR's research, analysis, education, and advocacy. Pfau hopes to create a south-facing elevation that is both transparent and sustainable, while SPUR is shooting for a spring 2008 inauguration. *Kenneth Caldwell*

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Vest End Pedestrian Bridge by Endres Ware

ere are 435 bridges in the greater Pittsburgh a. Despite the crowded field, the local nonprofit erlife Task Force imagines that the newest entry, West End Pedestrian Bridge, will "redefine" its st city "for decades, if not centuries, to come."

Once completed, the Endres Ware–designed dge will be a centerpiece of the new Three ers Park. Outlined in a 2001 vision plan that erlife commissioned from Chan Krieger sociates, the park is meant to reclaim and nsform the Pittsburgh riverfront, "letting water place the smoke and steel that were symbols the city's past." Ultimately it will comprise an -mile trail system linking 13 bridges, each with graded pedestrian access, water landings, d lighting elements; phase one includes the est End Pedestrian Bridge.

The project is an addition to the existing West d Bridge, the 75-year-old tied-arch structure that as built to span the Ohio River and that acts as portal to downtown Pittsburgh. The Endres are scheme, which was selected in a Riverlife-onsored competition in June, flanks the existing ck with two pathways. The pathways' structural stem combines "both arch and catenary,"



explains partner Paul Endres, AIA, and "forms a tied arch in elevation and a suspension bridge in plan and braces itself like a bow." When viewed directly, "the trussed arch is visually unchanged, [but] when changing your viewpoint, you will discover your impression of the bridge will change dramatically."

The bridge expansion could cost as much as $12 million, approximately half of the first-phase budget. According to Riverlife executive director Lisa Schroeder, the organization is "working right now to create a public/private strategy for funding," with more specific plans to be announced in 2008 when Pittsburgh will celebrate its 250th birthday. *Jennifer Lucchino, AIA*

ift New Parliament by AOC



ne London International Festival of Theatre (Lift) ill open its new venue in June 2008. And after 0 days, it will pack up the venue and send it own the Thames—to its next performance site.

Scheduled to open for the organization's June 008 convocation, the Lift New Parliament will be nomadic space supporting a broad array of plays, nstallations, film screenings, and conferences. esigned by London-based firm AOC, the white, our-story tensile structure's steel trusses and fabric kin can be folded into two shipping crates.

The architects found precedent to this tempo-ary megastructure in Cedric Price's "Fun Palace," n antibuilding conceived in the 1960s whose only considerations were ultimate flexibility and enjoyment. In fact, Price imagined his utopian project placed at Lift's initial East London site.

According to the jury that selected AOC's proposal from 56 competition submissions, one of the mobile unit's most attractive features is its capacity to introduce new structures within it to accommodate ever-shifting programmatic demands. The firm is now working on designs for what its director, Geoff Shearcroft, calls "deployable roomscapes." Shearcroft says the space will be configurable using a system of ropes and pulleys. Furthermore, an overhead ring beam allows the structure to open differently, offering varying degrees of public and private exposure as well as maximum curatorial adaptability. One of its four-story surfaces can be employed for large-scale projections.

Lift and The Architecture Foundation sponsored the May 2006 international design; AOC was selected in July from a shortlist that included muf architecture/art with Atelier One, Wong-Wai Pui with Arup, and Blee Tite. Lift New Parliament will travel across the U.K. and internationally with different festival hosts and sponsors. *John Gendall*

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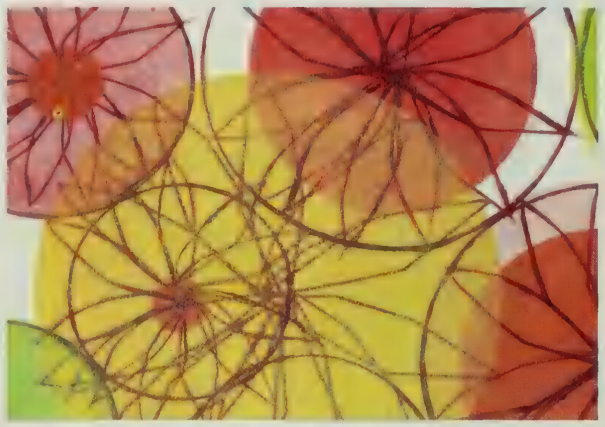
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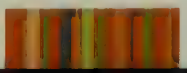
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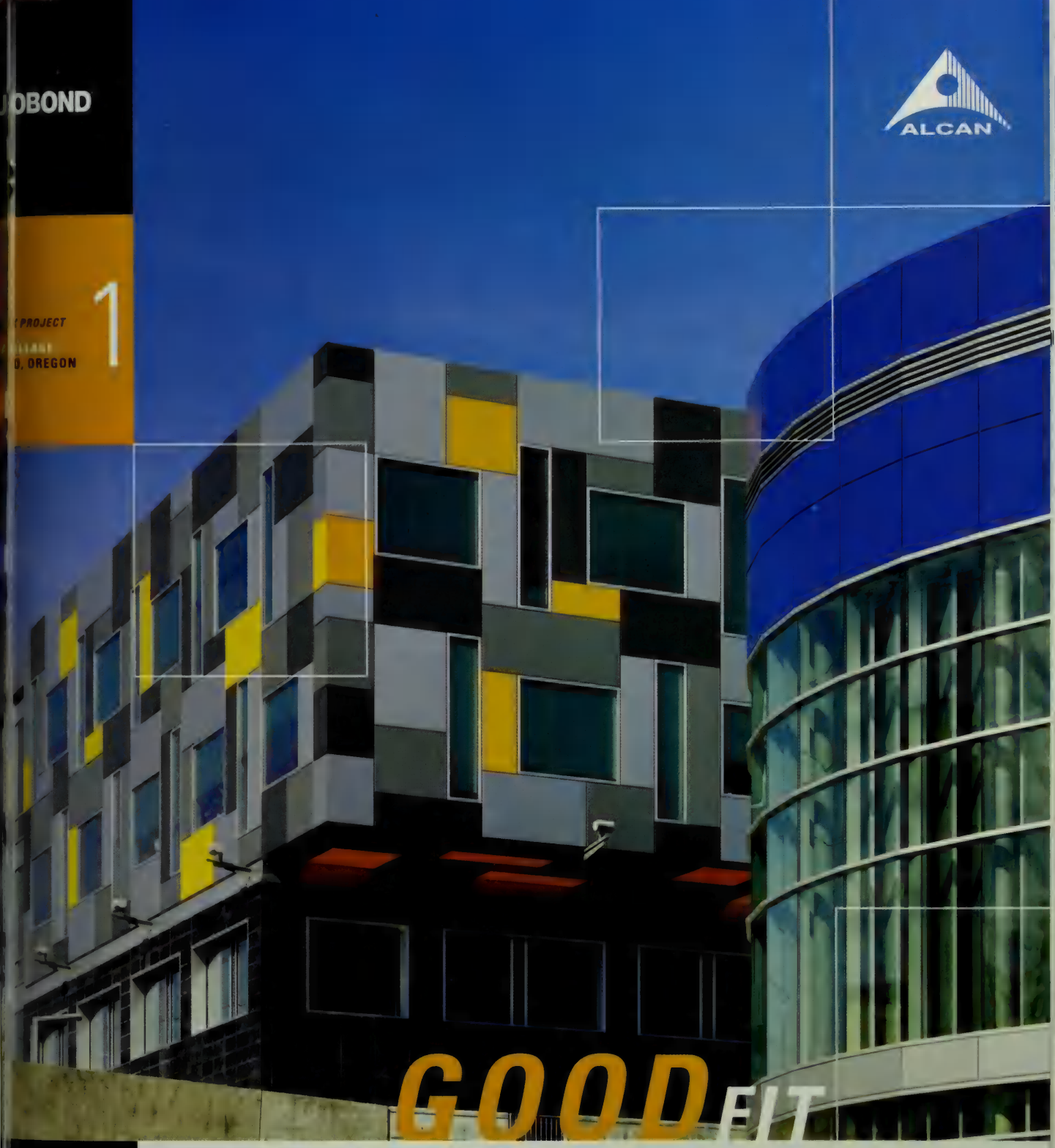


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For and about the emerging architect

archrecord2

n Arbor, Michigan, a breeding ground for talented young architects? Not only does this month's
ıtured Design firm hail from there, but so do two practices introduced in archrecord2 in 2002
.Ar Iwamoto Scott Architecture, in April, and PLY Architecture + Design, in August) and a RECORD Design
ıguard firm from 2005 (Mitnick Roddier Hicks). Coincidence? In this issue, we also invite you to Pecha
cha Night, a design-related party hitting cities (Ann Arbor party planners take note!) around the globe.

esign

G office of landscape + architecture





The initials in the firm name PEG office of landscape + architecture stand for "Post Euclidean Groove"—in the spirit of Dutch architect Aldo van Eyck's theo-
s of 2D rational thinking about Modernism in a Euclidean groove. The firm's
ee principals, Keith Vandersys, Karen M'Closkey, and collaborating partner
f Sharpe (pictured, left to right), didn't
ıect to end up in Ann Arbor, Michigan. "I
s born and raised in Michigan," says
ıdersys, "and although I've spent the past
years trying to get away, the place seems
ure me back." Call it fate and the power of
reat architecture school—the Taubman
llege of Architecture and Urban Planning at
: University of Michigan, where Vandersys
a lecturer and M'Closkey an assistant pro-
sor. For M'Closkey, the lure was especially
ong. After receiving her B.Arch. at SCI-Arc
d her master's degree in landscape architecture at Harvard's GSD, she applied
and was given a tenure-track position at the University of Michigan. "It was
ch a great opportunity," she says, "and the fact that we can do real work while
ing a part of the university is ideal. It means we're always in conversation."



For the partners and their four-person firm, putting theory into practice in
lace with opportunity has resulted in a growing roster of clients. "Because
do both architecture and landscape design, many of our clients are archi-
cts," says M'Closkey. "We're interested in doing work at a variety of scales,"
ys Vandersys, "and here we've found interesting architect clients who under-
and what we're talking about. It's a 'negotiation of expertise.' "

Vandersys says they acknowledge the differences between interior and exte-
r environments, but their approach to both is similar: It isn't all about getting
ople outside, but on how clever spatial relationships between outdoor spaces
d architecture can be achieved. He calls their style "saturated Minimalism."



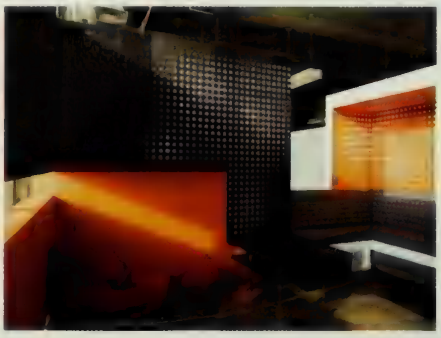
OM Spa, Dearborn, Mich., 2005
A 3,300-square-foot renovation of an existing building in the heart of Dearborn's shopping district, the spa creates a distinct spatial atmosphere through saturation of color and texture. A luminous acrylic wall in the reception area provides a dramatic backdrop.



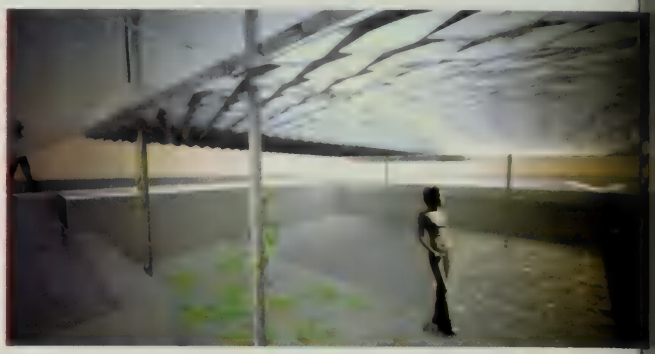
Almost Nothing, Detroit, Mich., 2004
Done in collaboration with PLY Architecture, this 4,000-square-foot reconstruction of a pedestrian plaza adjacent to Mies van der Rohe's Lafayette Park was the winning entry for the "Mies in Michigan" competition sponsored by the University of Michigan.

Double Jeopardy, Ann Arbor, Mich., 2006
Defined by control between a point and a line, the design of two student lounges on the University of Michigan campus use perforated plywood screens to add to the geometry with light.

With several projects of various scales and scopes under their belts in Michigan, the firm is branching out—especially on the landscape architecture side of their business—in such places as Texas, South Carolina, and Ohio. The partners want to grow the firm to eight to 10 people, yet they can't see giving up small projects, or hands-on involvement. "We like making things," says Vandersys, "and we want to participate in projects at a variety of scales, not just direct or manage them." *Ingrid Spencer*







Mirage House, Mirage, N.M., unbuilt
This competition entry calls for extending the building into the landscape. Usin Mies's Farnsworth House as an example, the Mirage House frames the landscap with layers of zones and multiple horizons, where refraction replaces reflection.

For more photos and projects by PEG office of landscape + architecture, go to archrecord.construction.com/archrecord2/.

Work

Pecha Kucha Night—6.6 minutes of fame

Young designers don't have to relegate their work to portfolios or as decor for their apartment walls: Pecha Kucha Night (PKN), as profiled in November's Record News [page 38; and archrecord.construction.com/news/daily/archives/061101forum.asp], provides a forum in which everyone from architects to students and recent graduates is welcome to present their work (in 20 seconds per slide with a 20-slide limit). "It may be a newly finished building, it may be a new project, a new piece of furniture, a new event, a new idea, something you want to share with everyone," explains the PKN Web site (pecha-kucha.org).





Pecha Kucha (Japanese for the sound of conversation) Night has become a global "happening" that draws large crowds of design-savvy individuals wherever it occurs, as at a Tokyo gathering (left), and one in Buenos Aires (right).

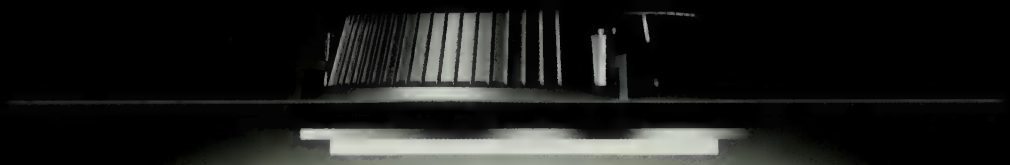
PKN is currently held in more than 40 cities and will soon begin in Austin, Texas; Atlanta and Indianapolis; and abroad, in Marseille, Barcelona, Seville, Udine, Hong Kong, and Lagos. "New cities launch Pecha Kucha Night events normally when a local designer or architect [in] that area has attended or read about Pecha Kucha Night and has realized that their own city needs something similar," explains Jenny Brown of Klein Dytham Architecture, the firm that founded the event. The designers then contact partners Astrid Klein and Mark Dytham, and after a short discussion and a "handshake agreement," Klein and Dytham work with the designers to set up the first event. No money is exchanged: PKN is nonprofit. "Most of the organizers run it out of their love and passion for design, and it is this passion that gives it the energy that has fueled its growth so far," says Brown.

Herman Ellis Dyal, C.E.O. of the Austin-based environmental graphic design firm FD2S, is organizing and identifying presenters for Austin's first Pecha Kucha event. He explains that the emphasis is on emerging talent and includes related design professions. "I consider architecture to be the foundation of the program, but we're broadening it to include graphic art, fine art, advertising, and other disciplines." Dyal is working with others to handle logistics, including venues, which vary by city. Klein and Dytham encourage organizers to find unusual spaces in which to hold PKN. Often a low entrance fee covers expenses. Publicity also varies in each city, but typically spaces are filled by word of mouth, since PKN is as much a social event as a networking opportunity. What better combination than alcohol and architecture? *Murrye Bernard*

For more information on PKN, go to archrecord.construction.com/archrecord2/.

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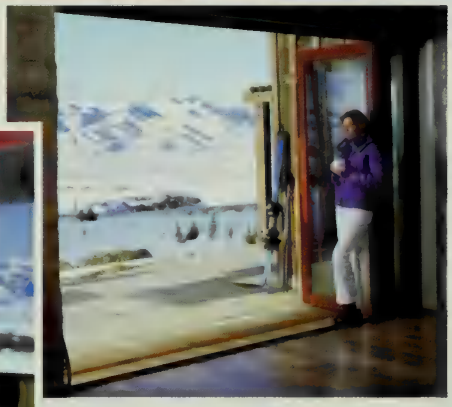
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What's enduring and what's new in Japanese architecture

Books



pan-ness in Architecture,
Arata Isozaki. Translated by bu Kohso. Cambridge: MIT ess, 2006, 369 pages, $30.

ata Isozaki's writing, like his chitecture, reflects a deep ellectual restlessness, which is oted in his complex relationship his Japanese identity. This nsely written collection of essays uches on 1,300 years of panese architecture while pre- nting provocative opinions and eculations, meditative reveries, d Zen-like riddles. In short, this challenging reading that requires miliarity with more than a thou- nd years of Japanese history or gular consultation of the glossary Japanese architectural terms at e back of the book.

Assuming you remain ndaunted, or are willing to skim *pan-ness* for nuggets, you'll find markable insights here. After a gorous opening essay cataloguing mplistic Western stereotypes out what makes Japanese archi- cture Japanese and clichés quating "Japan-ness" with exotic Orientalism, Isozaki critically reflects on three masterworks of Japanese architecture with which Westerners might not be intimately acquainted. But rather than a strict structural analysis of the 7th-century Ise shrine, the 12th-century reconstruction of the Todai-ji temple, and the 17th-century Katsura Imperial Villa as objects, he considers them as manifestations of crucial turning points in Japanese history spawned by turbulent times, requiring open-ended interpretations to unlock their Japan-ness.

Isozaki also showcases a number of Japanese philosophical concepts deeply suffusing traditional architecture, particularly *ma*, meaning an interval in time and space between one object and another, a core characteristic of the Japan-ness the author celebrates. He sees himself, and his postwar generation of architects, as maintaining Japan-ness by forging a synthesis, combining the best of Western Modernism with traditional Japanese aesthetic notions like *ma*, enshrined in the 7th-century Ise shrine.

While deeply committed students of Japanese architecture will find this book provocative and clarifying, for many readers the poorly reproduced illustrations will be baffling. Equally befuddling is the absence of a basic time line of Japanese history or architecture. But some degree of lingering puzzlement should be expected from an architect who designed a golf clubhouse in the shape of a question mark. *Norman Weinstein*

Kazuyo Sejima + Ryue Nishizawa: SANAA,
by Yuko Hasegawa. New York: Phaidon, 2006, 268 pages, $70.



If you haven't yet heard of Kazuyo Sejima and SANAA, the firm she founded in 1995 with Ryue Nishizawa, you will soon. This past August, SANAA completed its first building in the United States, a floaty glass pavilion with open courtyards in a small park in Toledo, Ohio, for the Toledo Museum of Art's glass collection [RECORD, January 2007, page 78]. At about the same time, the firm completed a design school in Essen, Germany, that takes a very different approach to materials, showing off a concrete envelope punched with a mosaiclike pattern of windows. In 2005, SANAA broke ground for the New Museum of Contemporary Art in Manhattan, a stack of galvanized rectangular boxes, clad in silvery, zinc-plated steel, that repeatedly shift off axis as they ascend to admit light and views. And the firm has a number of other important projects under construction, including a theater in Almere, near Amsterdam; a museum extension in Valencia, Spain; an office building for Novartis in Basel, and a satellite branch of the Louvre in Lens, France.

The 50-year-old Sejima is the firm's star. While Nishizawa's designs tend toward the rational, Sejima's weightless and open buildings, each different from the other, are brilliantly intuitive. Author Yuko Hasegawa writes that 40-year-old Nishizawa's "vision appears less exceptional than Sejima's." In the book's four chapters, Hasegawa concentrates on Sejima and work that is newly completed or in progress.

Until opening her own office in 1987, Sejima worked in Toyo Ito's firm, and her aesthetic is strongly influenced by Ito's cinematic, ephemeral style. The first building she completed after leaving Ito, Platform House, is light but hardly ephemeral. Her tendency here and in future work is on how a building works. In Shinto-like fashion, she views the whole space as a working unit housing other small universes. Her buildings, which are often transparent, harmonize with their settings. Interiors and exteriors tend to mirror each other, and interior circulation is apt to be unconventional. After 1995, when she and Nishizawa joined forces as SANAA, the work became characterized by multilayered continuity often beginning at roof level and extending through courtyards, as at a multimedia studio at Oogaki (Gify Prefecture), which opened in 1999. SANAA's 21st Century Museum of Contemporary Art in Kanazawa [RECORD, February 2005, page 88]



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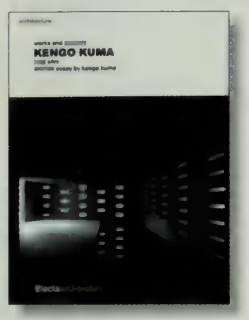
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Books

ares some characteristics with later Toledo Glass Pavilion—a -slung, curved-glass exterior and et courtyards—but has a differ- t personality due to its larger size d more complex circulation.

In its design, featuring plenty of ite space that sets off often nslucent and otherworldly looking ages, Hasegawa's book conveys e ethereal quality of SANAA's work. ncludes a variety of drawings, illus- iting how Sejima progresses from nctional diagrams to elevations d facades. The text is straightfor- ard but not always idiomatic, so it s a heavily accented feeling to it. e author concludes her book with ef biographies of Sejima and shizawa and thumbnail images of SANAA projects—useful sources information for two architects st now establishing international putations for themselves.

ndrea Oppenheimer Dean



Kengo Kuma: Selected Works, *by Botond Bognar. New York: Princeton Architectural Press, 2005, 192 pages, $40.*

"My ultimate aim is to erase architecture, because I believe that a building should become one with the surroundings," writes Kuma in an introduction to this monograph. Of course, erasing architecture and making it "one with the surroundings" are not the same, but never mind. Kuma's attempt to erase architecture prompted him to bury an observatory atop Mount Kiro on Yoshiumi in 1994. There, Botond Bognar writes, he discovered "the potential of architecture to act as an experience or phenomenon rather than as an object."

This gorgeously illustrated volume is the first full-length monograph on the 53-year-old Kuma. In it, Bognar, a scholar of Japanese architecture, describes the varied stages Kuma has passed through in trying to erase architecture, while placing his work within the context of recent Japanese architecture. The author points out that Kuma learned from the German architect Bruno Taut, who—did you know?—escaped to Japan from Germany for three years during the Nazi period, criticized Le Corbusier and Mies for embracing formalism, and praised Kyoto's Katsura Villa for its varied experiences and its relationships to its garden. In the late 1980s, Kuma explored stylistic Postmodernism: fragmentary compositions, uncommon use of materials, and features of traditional architecture, as in the exuberantly collaged M2 Building (1991) in Tokyo. But the bursting of Japan's economic bubble in 1990, while M2 was under construction, ushered in a more sober period.

Kuma, like many other Japanese architects, turned to thrifty and ecological solutions, and "a more sensitive use of the available and increasingly sophisticated technologies," writes Bognar. Much of Kuma's work was in the provinces and small in size. At the 1995 Water/Glass House in Atami, Kuma emphasized the horizontal plane to "achieve a continuity of space" and used contemporary materials, mainly glass and stainless steel. At his Stone Museum in Nasu (2000), he used thin louvers of stone that, he believed, made the building "light and approachable." At the Museum of Ando Hiroshige in Bato (2000), he employed narrow wooden slats and louvers in an attempt to blur the edges between the building and surrounding tree trunks, convincingly fusing architecture and nature.

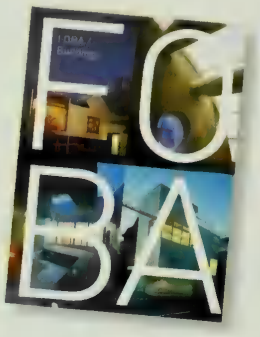


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Books

The museum also shows Kuma's enduring attempt "to bridge the traditional and the innovative, as well as the local and the global."

Kuma's experiments with a variety of design approaches open him to charges of trying to be politically correct and lacking conviction. Indisputable, however, is the simple sophistication of his buildings and his sure, light touch. *A.O.D.*



FOBA: Buildings, *by Katsu Umebayashi, Thomas Daniell, Michael Webb. New York: Princeton Architectural Press, 2005, 224 pages, $40.*

The eternal question for FOBA and its founder Katsu Umebayashi is how to respond to the chaos of Kyoto, Umebayashi's home city and the base for his firm. During the past five decades, the ancient capital has been transformed by widespread construction of tiny, detached houses and garish towers. "The cumulative effect," Umebayashi writes, "has been to shatter our sense of authentic place. The natural beauty of Japan is now just a poignant memory."

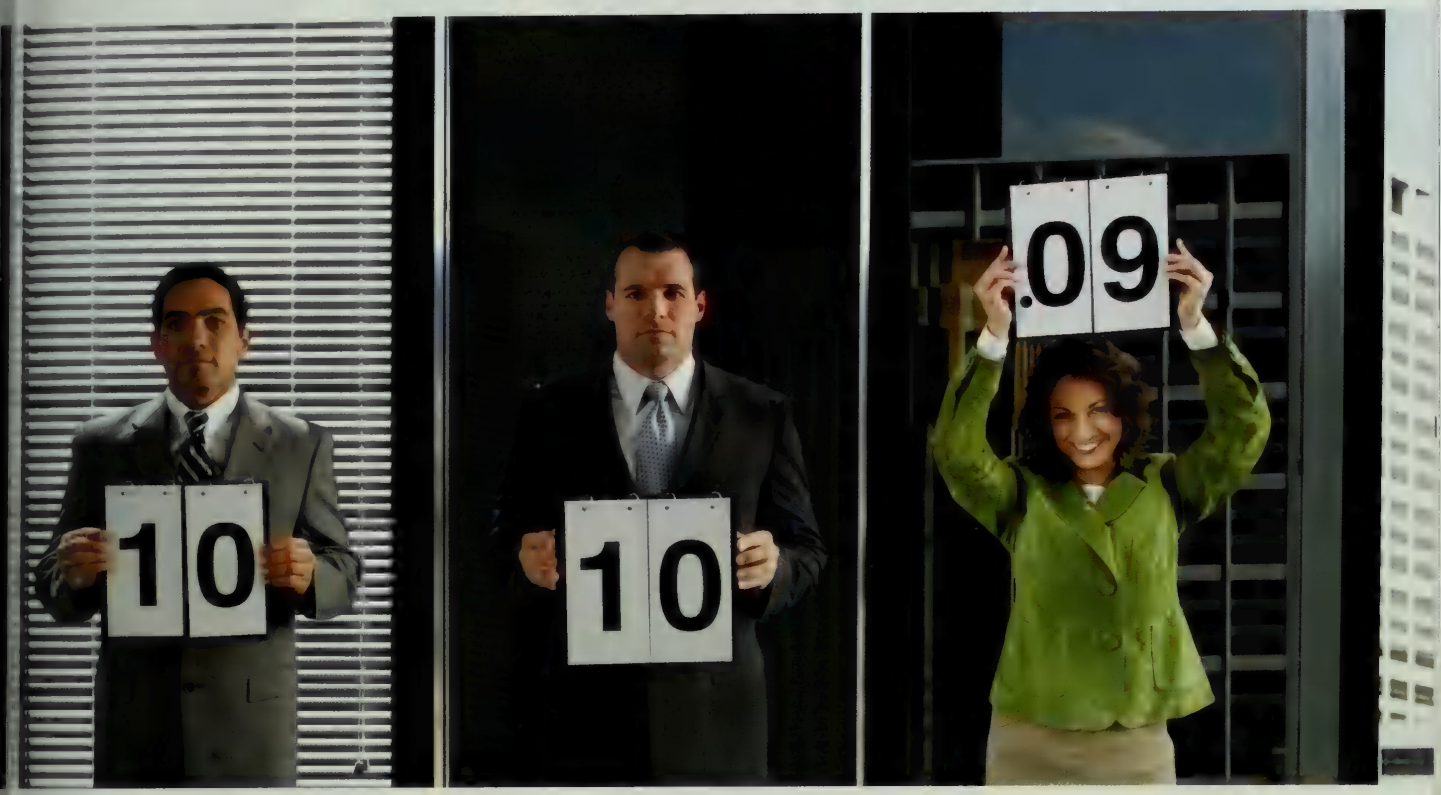
Fumihiko Maki, a Kyoto native who has lived in Tokyo for many years, addressed the city in his projects there by ignoring it, creating minimal, universal buildings. Shin Takematsu, another native son and Umebayashi's employer during the early part of his career, attacked the visual chaos with sculptural forms that drew attention away from the surrounding bedlam. Instead of ignoring a difficult urban context or waging a frontal attack, FOBA, founded in 1994, engages it, writes Michael Webb. The firm plays "to the strengths rather than the weaknesses of the surroundings," and tries to locate the enduring amid the ephemeral, says the author.

Each of FOBA's projects is different, and Umebayashi rejects having an aesthetic signature. "I always want to try something unconventional. Otherwise, why take on a job at all? It should be new every time." Once FOBA establishes initial responses to the site and the client's wishes, Umebayashi writes, "space—volumetric, dynamic, and continuous—comes first." As important for the architect, who grew up in an old Kyoto house, is the melding of contemporary design with traditional Japanese values, creating what Webb describes as "spiritual oase where old ways can be perpetuate in unabashedly modern settings."

Umebayashi's first work as an independent designer, the Organ Complex, houses FOBA's offices. Descriptive of FOBA's approach, it consists of boldly m eled organic volumes-interlockin boxes, bays, lanterns, and gable raised on steel columns and clad in corrugated metal. It hints at th megastructure and plug-in capsules of the Metabolist work of Kenzo Tange, and Kisho Kurakaw but is less industrial, more crafte Its interior consists of continuous twisting, shifting open spaces.

The 10 completed works in this compact book range from austere to boldly expressionistic. Visually, each project is beautiful and clearly explained with photographs, drawings, and plans. Descriptive texts are short and straightforward. The book's forma fits FOBA like a neatly tailored suit. *A.O.D.*





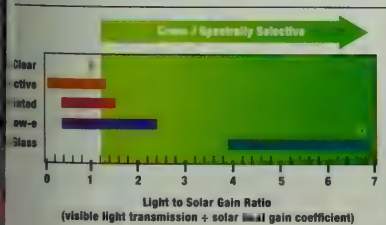
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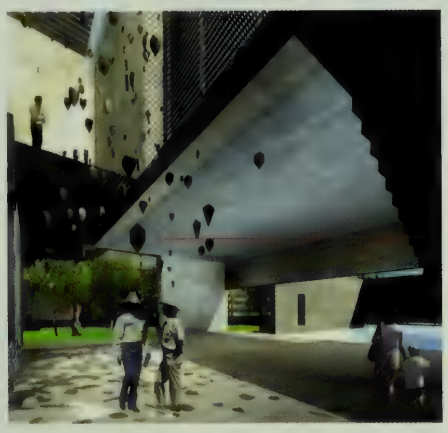
All sales final, everything must go

Exhibitions

By Russell Fortmeyer

sign Life Now: National sign Triennial 2006
rated by Ellen Lupton, rbara Bloemink, Brooke Hodge, d Matilda McQuaid. At the oper-Hewitt National Design iseum, New York, through July , 2007; The Institute of ntemporary Art, Boston, ptember 27–January 6, 2008.







Field Operations' 2005 University of Puerto Rico Botanical Garden (top), Panelite's 2003 workstation (bottom right), and Predock Frane Architects' 2002 Central California Museum of History (bottom left) fill the triennial.

a jaded design community, the 06 National Design Triennial, *sign Life Now*, represents old ws—products and projects that ve, for the most part, previously ed every design magazine and ide show gossip mill to the point overload. Drowning in a culture of stantaneous awareness, for savvy, obe-trotting architects, artists, aphic designers, product creators, d lifestyle gurus, the very thought mounting a sprawling design show flecting on the industry's past ree years may seem as fresh as a ilippe Starck hotel lobby. There is surprise, only product placement.

Of course, such a knee-jerk ading lacks at least some sympa- y. The triennial has always fittingly complished the singular, over- helming task of sorting through e nonstop output of this country's esign community and situating e detritus in a somewhat acces- ble manner to give the consuming ublic an inkling of what consti- tes contemporary design. In that spect, Design Life Now lives up to s two previous iterations, in 2000 nd 2003.

The whole mess of an exhibition ls every nook and cranny of Andrew Carnegie's 1902 mansion, as if someone pulled off the dust covers in grandma's attic and hauled everything downstairs. And with 87 designers involved, no category turns up empty-handed: architecture, book design, jewelry, fashion, graphic design, toymaking, animation, aerospace, advertising, landscape architecture, computer programming, publishing, lighting, glassmaking, furniture, wallpaper—and, wait, there's more—even hair pieces make the cut!

Within these endless categories (i.e., everything is design, unless, of course, it's art), the triennial makes little effort to clearly articulate its criteria for inclusion. Descriptions, such as "handmade," "mass-produced," "conceptual," "craft," "corporate," "global," and "local," apply to any number of pieces. It leaves one to conclude the show may represent nothing more than a grand attempt at cool-hunting, in which case, it pays to have a good New York publicist.

Cool-hunters beware

In taking the bait to cool-hunt our way through all three floors, we see in architecture that the past three years have meant the maturation of slick, Modern prefabricated homes (Lazor Office's 2004 Flatpak House and Craig Konyk's 2003 up! house); the continuation of warped surfaces and supposedly difficult geometries (Vito Acconci's 2004 San Juan Skate Park and Preston Scott Cohen's 2005 Robbins Elementary









Clockwise from top left: Hoberman Associates' *Rapidly Deployable Structure* can be set up by four people in less than three minutes. Organ Recovery Systems' *LifePort Kidney Transporter* extends the viability of shipping organs for transplant. Boeing's *787 Dreamliner* hints at expected refinements in first-class air travel. Judy Geib's *Sea Sounds Seashell* bag mixes nature and craft.

School); and the ongoing pursuit of sleek, ribbonlike planes as architecture's main organizational strategy (Toshiko Mori's 2005 Syracuse Center of Excellence and Bernard Tschumi's 2004 Vacheron Constantin Headquarters and Watch Factory). Fair enough, but outside of SHoP's ingenious display of its 2005 kit-of-parts Camera Obscura at Greenport, New York's Mitchell Park [RECORD, July 2006, page 94], a project that conserves materials through advanced fabrication techniques, the country's true revolution in sustainable design has gone missing. For an exhibition that trumpets bio-mimicry in its introductory wall text, architecture's opportunities have never been more overlooked.

Other categories fare better in the cool-hunt. Thom Browne's spring 2005 and 2006 fashion collections attest to the New York designer's radical take on traditional menswear, using unconventional fabrics like football jersey mesh, pairing shorts with suit jackets, putting models in knee socks, and tailoring hemlines to fall above the ankle. Browne's daring exemplifies how even the fustiness of a men's suit can become a transgressive statement. Clear Blue Hawaii's 2003 *Napali* kayak, constructed of transparent urethane/PVC with a carbon Kevlar frame, can be folded up and stored in a backpack. The *Knock-Down/Drag-Out Table*, by Christopher Douglas, of Portland, Oregon's Material Furniture, quickly collapses into a flat pack, making life easier for people who move often. What's more, the table's wood core comes from a sustainably harvested forest.

TRUMPETING BIO-MIMICRY IN ITS OPENING SALVO, THE TRIENNIAL OVERLOOKS THE SUSTAINABLE DESIGN REVOLUTION.

A great deal of the show increasingly focuses on the digital realm and can't escape the confines of a monitor, such as Google's array of Web sites; Will Wright's games series, The Sims, for Electronic Arts; and Hunter Hoffman's Snowworld, a light-hearted, virtual-reality game played by severe burn patients during therapy. Conversely, the more traditional design subjects could benefit from a fresh take. Similar to the chief complaint with all architecture shows, that photographs and models kill the work, one wonders why an exhibition as unbounded as the triennial wouldn't take advantage of the Cooper-Hewitt's large rear gardens for major installations? Why not construct Hoberman Associates' 2004 Rapidly Deployable Structure tent and fill it with Panelite's nifty, cast polymer honeycomb benches?

I blog, therefore I am

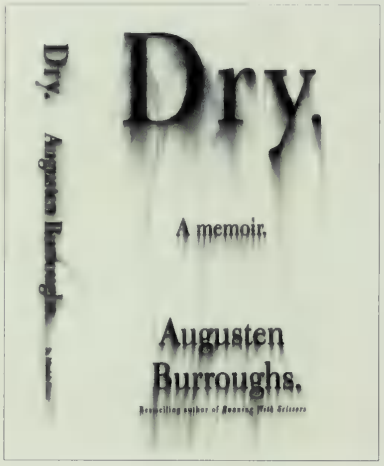
As if anticipating Time magazine's Person of the Year cover for December 25, 2006, the triennial's focus in its introductory text on the ability of the individual to participate in a broader conversation about design—through blogs, forums, wikis, and other interactive social networks—posits the exhibition's viewer as the site of the most potential for further change in the vast realm of design. And in America, we do that by shopping. So it comes as little surprise to see a product from the triennial's underwriter, Target, stores—Deborah Adler's straightforward, color-coded 2004 *ClearRx Prescription System* containers—brazenly represented in the exhibition. As we all know by now, Target has embraced high-design, low-priced fare in a successful bid to differentiate itself in a market ruled by Wal-Mart's generic, uninspired merchandise. Some may call this

as her humble assistant. Never in the way. Always one step ahead. Divining her every
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otlight, it was hers to be had. She had now all but forgotten his presence. So easy
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Clockwise from left: Chip Kidd's witty, Ed-Ruscha-inspired 2003 cover for the book *Dry*. The do-it-yourself aesthetic of *Make* magazine. Building an avatar in Will Wright's 2005 virtual living game, *The Sims 2*. Planet Propaganda's arresting 2004 theater poster, *Untitled Farce*. Pixar's character, Edna Mode, the utlimate style maven from the 2004 digitally animated film, *The Incredibles*.







democratizing design (and it certainly contributes to a national curiosity that makes even the triennial possible), but doesn't it really suggest the democratization of the designers? By bringing in big names to do small collections, retailers like H&M, the Gap, and Bed, Bath and Beyond have only proved they can convince brand-name designers to work at lower price points, not that the masses secretly crave astronomically priced high design. It's a profitable niche, certainly, but at the end of the day, those curvaceous, translucent Karim Rashid trash cans sit in Tuscan-style, stucco-clad tract homes. In 2006 in America, design only goes so far.

Perhaps we ask too much of the triennial when we expect it to raise public consciousness of design so that consumers might begin supporting a creative aesthetic that embraces a larger ambition than to assure the highest quantity sold for the least cost. This assumes, though, that the triennial's stated purpose—to raise awareness of great design—is meant to be productive, rather than merely informative. But can we even attach design consciousness to, say, the underlying moral imperatives embodied in the sustainable movement? That this question remains largely unacknowledged in the triennial suggests benign neglect, outright evasion, or worse: an underestimation of the public's interest.

Yours, mine, and ours

Instead, the masses get their due with the inclusion of characters from Pixar films. Edna Mode, the sophisticated, fast-talking design guru of the 2004 film *The Incredibles*, stands in here as the embodiment of the discerning curator whose judgment we must never question lest we seek scathing disapproval. Perhaps the curators included Mode as a willful rebuke to critics?

In the capable hands of a team that included Ellen Lupton, now the Cooper-Hewitt's curator of contemporary design, the triennial's first two iterations in 2000 and 2003 proved immensely popular affairs, continuing a latent Smithsonian tradition of promoting the best of America's digital, né industrial, economy. That many critics of the 2006 version trot out the same old complaints (too disorganized, too haphazard, too much) clearly has had no effect on the show's success. Lupton is joined this year by three other curators: Barbara Bloemink, the Cooper-Hewitt's curatorial director; Matilda McQuaid, who runs the museum's textiles department; and Brooke Hodge, the curator of architecture and design at the Museum of Contemporary Art in Los Angeles. All four contributed essays to the catalog (it was not available for review as of press time).

Aside from the main role of shopping for products, curators have little opportunity in the Cooper-Hewitt's mansion for a zippy installation of the materials provided by invited participants. Som detractors think sleek contempo- rary design can sometimes rub the dark wood banisters and crov moldings the wrong way, but the galleries' anachronistic agitation o the objects they contain constitute its own design dialogue. These Beaux-Arts spaces remind us that design mostly remains a personal preference and, while crown mold- ings will likely never find a way back into the triennial, they endu as white-hot a design choice as Panelite. Walking away from this triennial, one wonders in the insta voting era of American Idol if the role of the curator matters much i the realm of design or if, perhaps the top 87 non-media products o Amazon's Web site might yield mo telling results? Regardless, Edna Mode would certainly not approve.

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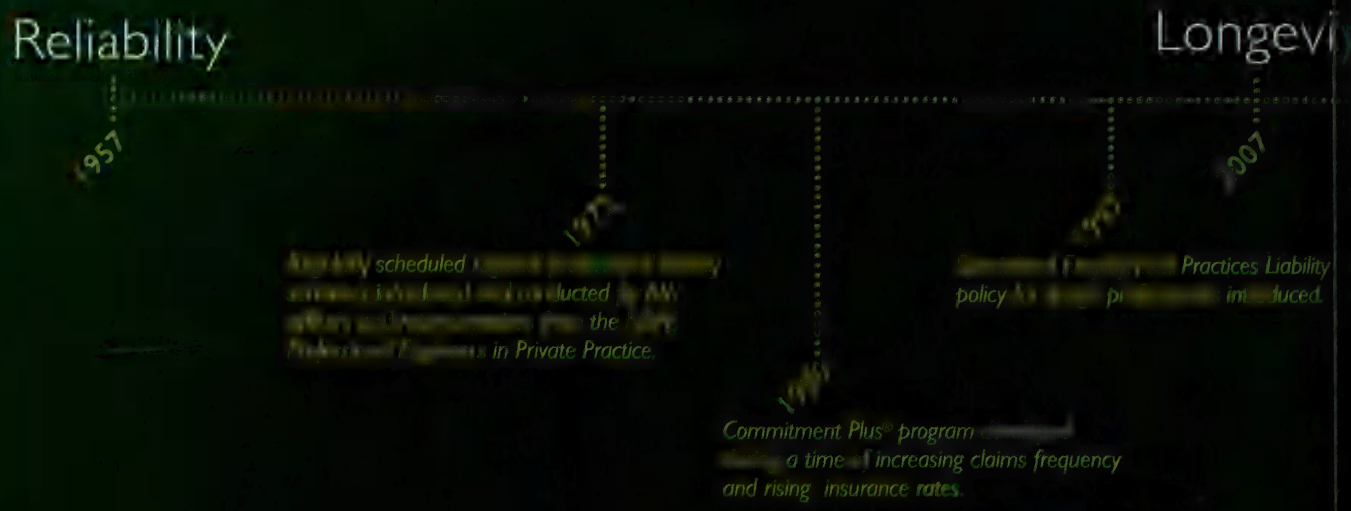
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Putting yourself out there: What to consider when designing your firm Web site

Practice Matters

By Ingrid Spencer

our firm isn't called Gehry Partners, er Scofidio + Renfro, or Herzog de Meuron, you probably believe he importance of having a Web e that offers viewers an abunnce of information about your mpany's projects and services. en though the American Institute Architects' newly published Firm rvey says that repeat business ngs over half of the new work to chitecture firms, it can only help show the world who you are and iat you do.

But, just as when architects sign their own homes, the pres- re is really on to put their best foot ward in creating a Web site. "We t a lot of thought into what we inted our site to be," says Joy abian, director of communications New York City–based Costas ndylis and Partners Architects ndylis.com). The firm hired com- an in-depth marketing tool. "We never intended the site to replace brochures," says Habian, "but now those brochures can be more targeted to specific clients."

Often firms use their sites to relay information about their design aesthetic and attract a particular kind of client. Alice Kimm, AIA, principal of 8-person firm John Friedman Alice Kimm Architects in Los Angeles (jfak.net), says, "The main purpose of the site is to gain a wider audience, and to ultimately recruit the "right" type of client—someone who understands a bit about us and can relate to our work. Many potential clients call us after having seen our Web site, which is great. People still like to see brochures, but we can direct people who don't to our site."

But David Skokna, creative director of Huge, a strategic design company that has designed sites for Hillier (hillier.com), DeStefano + Partners (dplusp.com), SmithGroup (smithgroup.com), and Beyer Blinder Bell (beyerblinderbelle.com), says that firm Web sites should be much more than project portfolios. "There are a lot of architecture firms out there," he says, "and when potential clients see your site, you've got less than a minute to differentiate yourself from the crowd." Huge's director of client services Aaron Shapiro says, "Hillier's story was that they had all these great experts working for the firm. We opted to open the site with pictures of people, and tell their story with surprising questions like 'How can architecture help cure cancer?' We then gave short explanations of why Hillier's cancer-research buildings provided architectural solutions that led to more productive research. Anything you can do to catch people's attention in simple, visual ways works best."

WHEN POTENTIAL CLIENTS SEE YOUR ITE, YOU HAVE LESS THAN A MINUTE TO IFFERENTIATE YOURSELF.

unications company Blank osseri—which has designed sites r R.M. Kliment & Frances Halsbad chitects (kliment-halsband.com), ichael Graeff Architect ngarchitect.com), and biproduct iproduct.com)—to redesign its te in 2005. It opted for a design iat would catalog its myriad projcts—acting more as an overview nd a resource for the media than

RCHITECTURAL RECORD's former anaging editor, Ingrid Spencer now ves and writes in Austin, Texas.



Alice Kimm, AIA, says the purpose of John Friedman Alice Kimm's site (jfak.net) is "to recruit the right kind of client." 64North (64north.com) designed the site.

Other firms organize their showcases by building type, have press releases, client testimonials, or even an internal, log-in area for multiple offices to communicate with each other. Gehry Partners' site (foga.com) is almost entirely devoted to giving information about job openings, and can take applications on-line. But whatever the purpose, creativity, originality, and elegance always win over spectacle and extravagance.

The basics

As well as considering your budget, you have to consider that your site must continue to represent your firm into the foreseeable future. Updates must happen as work progresses, and you want to be able to keep the look, the feel, and the content continuous. Many firms opt to hire a pro. According to Myrna Davis, executive director of The Art Directors Club (adcglobal.org), one good way to start looking for the right designer is to look through recent *Art Directors Annuals* (The Art Directors Club, New York) for winners in the Web-site-design category, then review the winners' sites. "Costs may range from the hundreds to hundreds of thousands of dollars," says Davis, "depending on the client and the complexity, so I advise deciding on a budget and estimating the number of pages, images, and graphic

designs that might be needed before seeking an estimate from a designer." Other places to start include the AIGA, the professional association for design (aiga.org), or just researching the competition and calling to find out who designed favored sites.

A professional Web designer can help you automate your updates, giving you the tools to have a living, breathing site that is never out-of-date. According to Sidney Blank, principal at Blank Mosseri, a site can be set up dynamically with content-management tools so that the firm itself can continuously update its own content. While Habian and her team opted to have Blank Mosseri do the updating for kondylis.com every six months, other firms find that the do-it-yourself method works best. "Our in-house marketing team updates our site monthly," says Kirsten Sibilia, Assoc. AIA, marketing director with New York City–based firm FXFowle Architects. "We don't have to understand the technology of it, just the process. We decided it was worth it to pay extra to be able to accomplish simple updates in-house." The 150-staff firm recently updated its site with the help of design communications firm Sundberg Associates. "Our site plays many roles for us," says Sibilia. "Recruiting is crucial, so we wanted it to have cool and fun elements to attract young architects. We also wanted it to be low-tech enough to be navigable by anyone."

Design principles

One reason to hire an independent Web designer is to get an outside eye. As aesthetically oriented as architects are, they still make basic design errors when taking on the design of their sites. There are many, including unattractive background colors with unreadable type, use of pointless animations that can't be skipped and take forever to load, navigation that leads to dead ends, links that aren't descriptive, and the use of frames—there are many elements that can make your site unwieldy and inelegant. Some of the worst mistakes come from overestimating the monitor size your viewers might have. Clarity is key, and if your site comes up and all the navigation is below eye level on a viewer's screen, there's a good chance they won't try to find it.

One of the most common mistakes is that firms fail to post the name of a specific person who can be contacted by a potential client or a prospective employee viewing the site—and, even worse, some firms don't include their phone number and address. This sends the message that either the firm is impersonal, or they're so unsure of who will be running their business-development department in the future, they don't want to commit a name to a Web site. It seems unlikely that a potential client looking to spend a million dollars or more on a building is going to send a query to a blind e-mail address.

Search engines

If the name of your site doesn't come up on the first page of a Google search, you're in trouble, and one of the reasons one should hire a top-notch Web designer is because they'll have strategies for getting to the top. In general, search engines are text based, not image based, so the more times you can insert the name of your firm and keywords about it in your Web site, the better your chances. Books like *Max Hits, Building and Promoting Successful Websites*, by Web guru Mike Slocombe (RotoVision SA, Mies, Switzerland, 2003), have plenty of information on the best ways to get prominent placement on search engines. And if other sites have links to your site, you should put that link on your page, too. For example, when a story about your firm runs in archrecord.construction.com, it will include a link to your site. Link to the story, and you've just added another chance for a search engine to recognize your site.





The Web sites designed by Huge (hugeinc.com) for Hillier (hillier.com) and DeStefano + Partners (dplusp.com) open with pages that tell the viewer about how each firm looks at architecture and design. Hillier's is very peop oriented; DeStefano's speaks about the things that influence the firm's wo

The Web evolves

Blank Mosseri has offices in New York City and San Francisco, and according to Blank, who was trained as an architect, he uses his firm's own Web site to keep the two offices in constant communication with each other—a service he offers his clients. "We've found that daily comments posted to our internal forums keep us in touch, and we can allow clients to view certain areas to keep them up with our progress on their sites," he says. As the world gets smaller and more communication occurs online, firms are also finding that marketing themselves to a broad, global audience can occur by way of a Web site. "Multilingual pages are complicated to create, b bringing that international marketi edge to architects can give them t exposure they need," says Skokna "Architects are great clients for W designers because they have suc keen aesthetics and an understar ing of principles important to Web design—grids, simplicity, visuals. They can and should present uniqu experiences for people who come their sites. The only limit is techno ogy, and as that continues to evol so will the potential of the Web." ■

Visit ARCHITECTURAL RECORD*'s Practice Matters Web site at archrecord.com/practice/ to see the architecture-firm Web sites* RECORD *editors have chosen as their favorites and to learn why they like them.*



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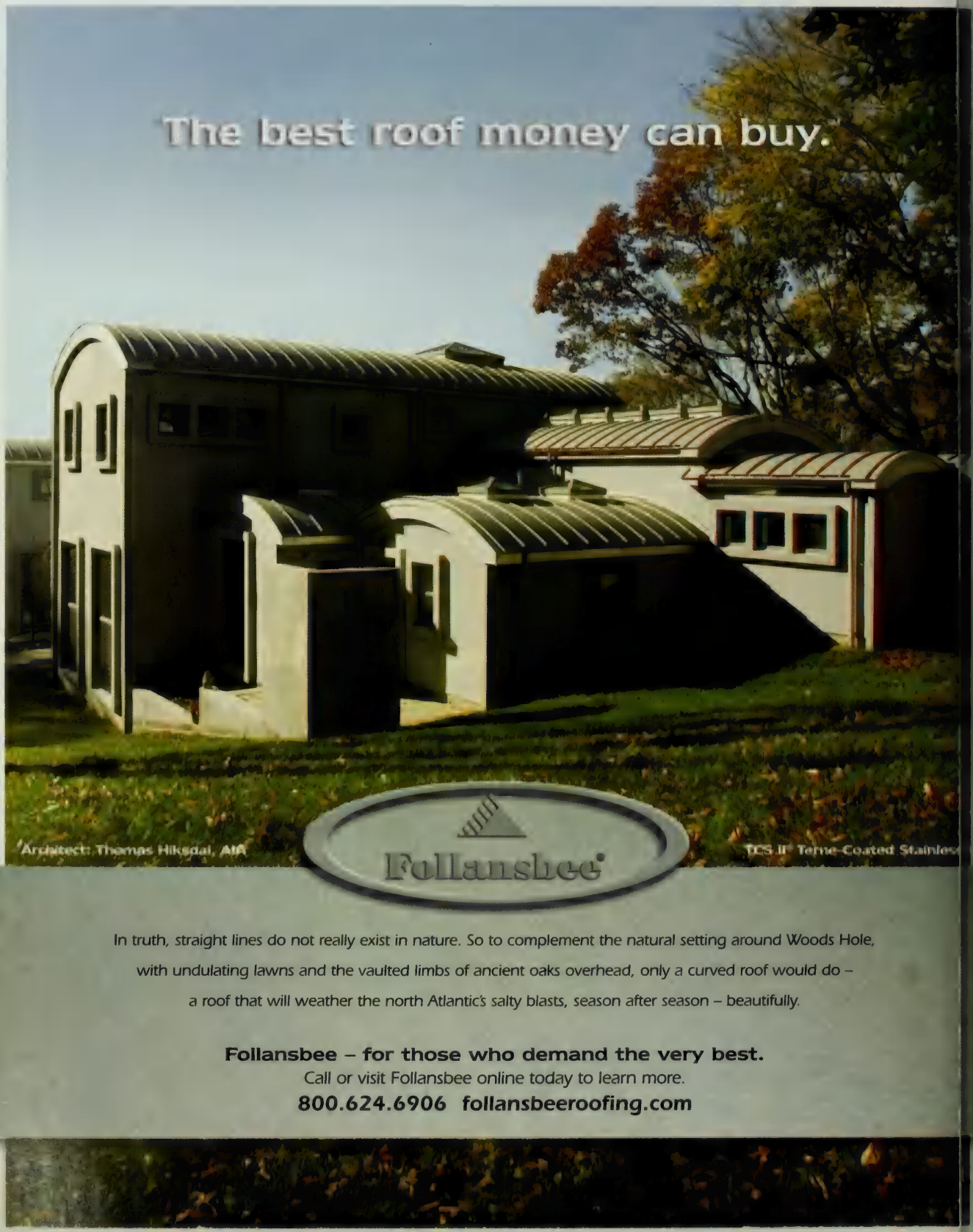
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Product View



hival photographs from Fred Trump apartment by (right) and Lapidus's ami Beach apartment ove) show the original idus pieces that inspired armless Alton Chair d right), the S-shaped ean Bench (bottom ht), and the acrylic-ned Island Sofa (below).







Back for an encore: The Morris Lapidus collection

y Rita Catinella Orrell

hile Morris Lapidus, Miami's spectacular and much-criticized postwar architect, did ot have the opportunity to put his furniture designs into large-scale production during s lifetime, a new collection based on archival photography of his projects debuted during ie Art Basel Miami Beach art show held in December. Created in a partnership between Dennis iller Associates and Lapidus collaborator and license-holder Deborah Desilets, the five designs are intended evoke his spirit while remaining versatile enough for both residential and commercial interiors. The collection ncludes three chairs, an acrylic-armed sofa, and a sinuous bench based on pieces designed for the Eden Roc (1955) nd Sans Souci (1949) hotels, a Fred Trump apartment building lobby (1948), and Lapidus's own Miami Beach apart-ient (1963). Dennis Miller Associates, New York City. www.dennismiller.com **CIRCLE 200**

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Trade Show Review London • 100% Design

hile Milan's Salone Internazionale del Mobile represents the pinnacle of furniture-fair style, the London event)0% Design is a reference point for pathbreaking ideas and homegrown talent. New products at the September)06 fair and satellite shows offer a sneak peek at trends that other designers will surely embrace. *David Sokol*

ontinuous Curves

any of London's offerings sported rves in multiple dimensions. hether inspired by Möbius Strips or utical precedent, these sensual eces are a foil to rigid Minimalism.

Steamy chaise Traditionally, eam-bending is a race against the ck: Wood remains pliable for only 30 conds after being removed from e steam chamber, limiting its formal tential. Using a new, localized process, ixis achieves more dramatic curves th its sinewy yet sturdy Chaise Longue). 4. Sixixis, Cornwall, England. ww.sixixis.com CIRCLE 201

Charlotte's web Young Turks yhan Özdemir and Sefer Çaglar signed the Flying Spider wire pendant mp with a bulb for a thorax and a ade for legs. Autoban, Istanbul. ww.autoban212.com CIRCLE 202

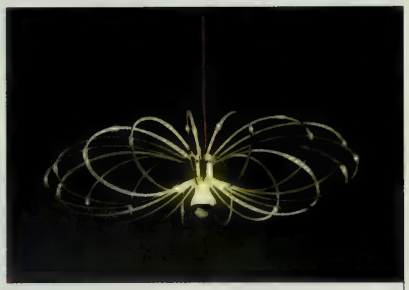
Wrap it up Designers Stefan nch and Carl Holloway form laser-cut uminum sheets into the Ribbon series low tables. The designers say the coffee d side tables' untraditional, open rms belie the inherent strength of the aterial. intheDetail, Birmingham, ngland. www.inthedetail.co.uk CIRCLE 203

A-peeling layers Inspired by signer Dominic Bromley's love of reparing meals, Cibola is a natural bone ina pendant that mimics the form nd translucency of a sliced red onion. e two-shade fixture is also available s a table or floor lamp. Scabetti, Leek, ngland. www.scabetti.co.uk CIRCLE 204

Flotsam furniture In just two ears, Established & Sons has positioned self as a juggernaut of high-concept rniture by commissioning work from esigners like Future Systems architect manda Levete. For Drift Bench, Levete ncapsulates her organic architectural lan-uage in seating made of glass-reinforced lastic or limited-edition dark stained eech. Established & Sons, London. ww.establishedandsons.com CIRCLE 205



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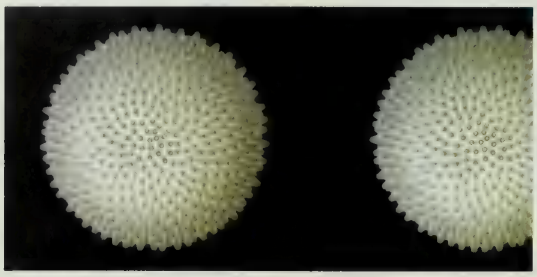
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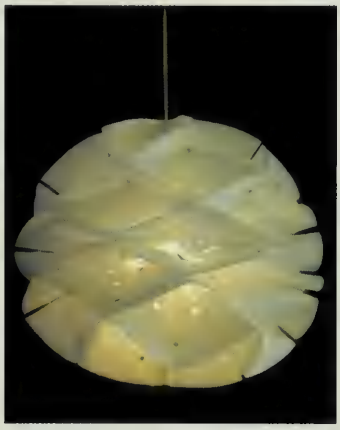


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The Dot Matrix

Designers are using circles, spheres and everything in between for furniture and lighting. To modernize this classic shape, a circular tabletop has been paired with surprisingly folded legs, while a pastille-like light is studded with a pattern ripped from the pages of a horticulture textbook.

1 Flower power Freedom of Creation uses rapid prototyping technology to introduce unprecedented shapes to product design. The pattern of the 377 table lamp, for instance, is based on the Fibonacci sequence that mimics the seeds in a coneflower head. Each indentation is topped by a tiny hole that casts rays throughout the room. Freedom of Creation, Amsterdam. www.freedomofcreation.com **CIRCLE 206**

2 In a bind While pursuing a degree at London's Royal College of Art, Sheldon Cooney became fixated with the school supply store's bulldog clips. Back at his studio, he attached his discovery to hot glass, yielding this pendant lamp that mixes artisanal skill and off-the-shelf humor. Sheldon Cooney, Werrington, England. www.sheldoncooney.com **CIRCLE 207**

3 Frosty felt Using a simple structure of felt layers attached by pressure buttons, Portuguese designers Raul Santos and Rita Muralha have produced Flake light, which evokes the hazy mystery of falling snow. Mood, Porto-Salvo, Portugal. www.bymood.com **CIRCLE 208**

4 Fruity pebbles Polyurethane foam molded on a steel frame yields two versions of the Pebble stool. The circular-edged seat can be used as an individual freestanding piece, while the scalloped-edge Pebble permits multiple pieces to be lined up in a row. Allermuir Limited, Lower Darwen, England. www.allermuir.co.uk **CIRCLE 209**

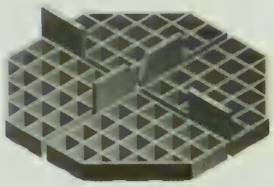
5 Turning Japanese Using CNC-stamped steel, Anthony Dickens folds the rugged material like fragile paper in the Origami Table. The piece's patented interlocking base requires no hardware, instead tightening when a load is placed on the top. Anthony Dickens, London. www.anthonydickens.com **CIRCLE 210**

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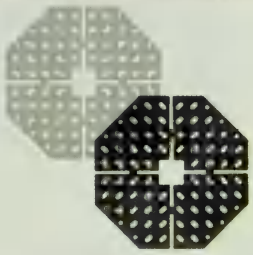
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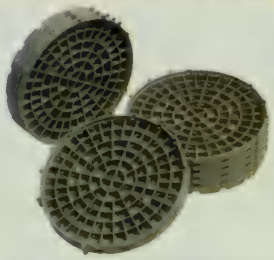
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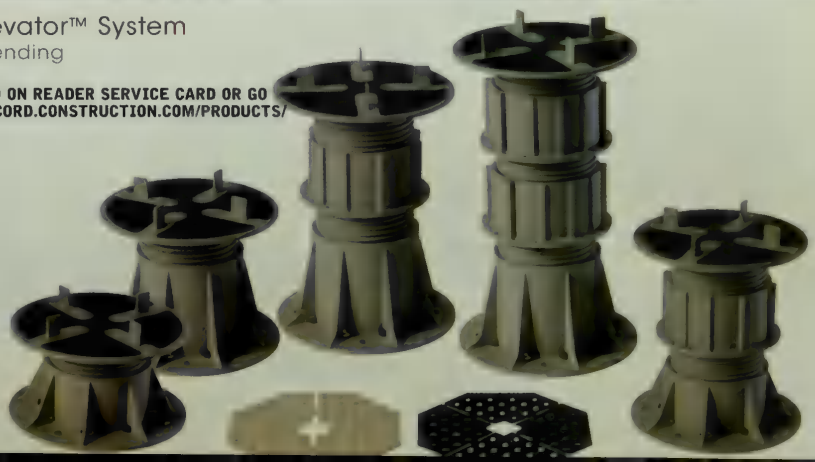
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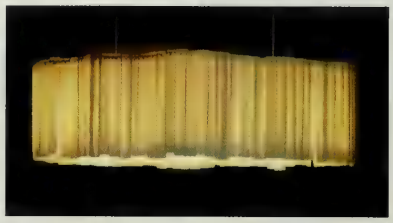
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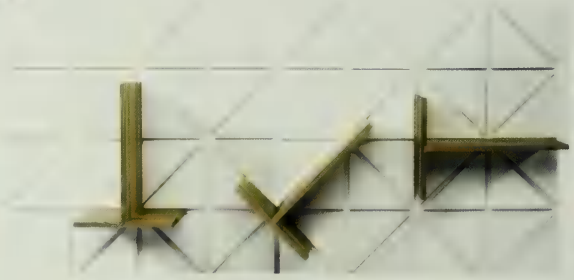


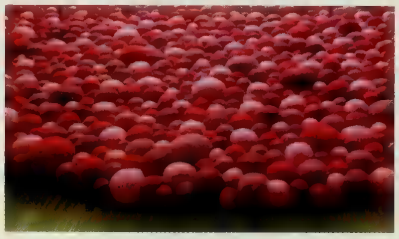


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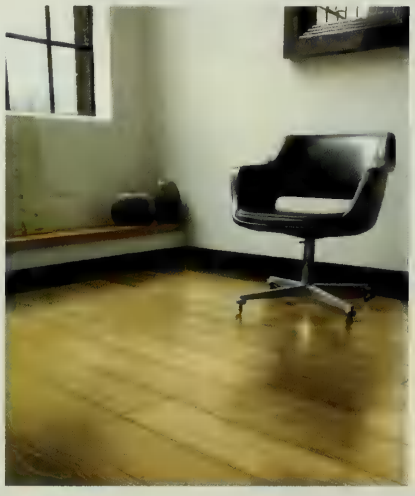


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Natural Beauties

The sustainability movement is manifesting itself in less apparent ways. While few exhibitors wore gre on their sleeve, they did introduce products with natural materials li unstained white oak, felt, and unglazed porcelain.

1 Faux fabric With its translucent appearance and rough edges, the ligh ing company Diffuse seems to have created its Nuage chandelier from ripped pieces of fabric. Actually, the undulating light is made of overlapping strips of naturally matte fine porcelain. Diffuse Limited, Langford, England. www.diffuse.co.uk **CIRCLE 211**

2 How Swede it is Vujj had its coming-out party during 100% Design. Among the launches on display were Flight, a sofa series of deep upholstere seats floating atop beech frames, and Alog, in which ash components are arranged in MDF slots to form graphically alluring bookshelves. Vujj, Malmö Sweden. www.vujj.com **CIRCLE 212**

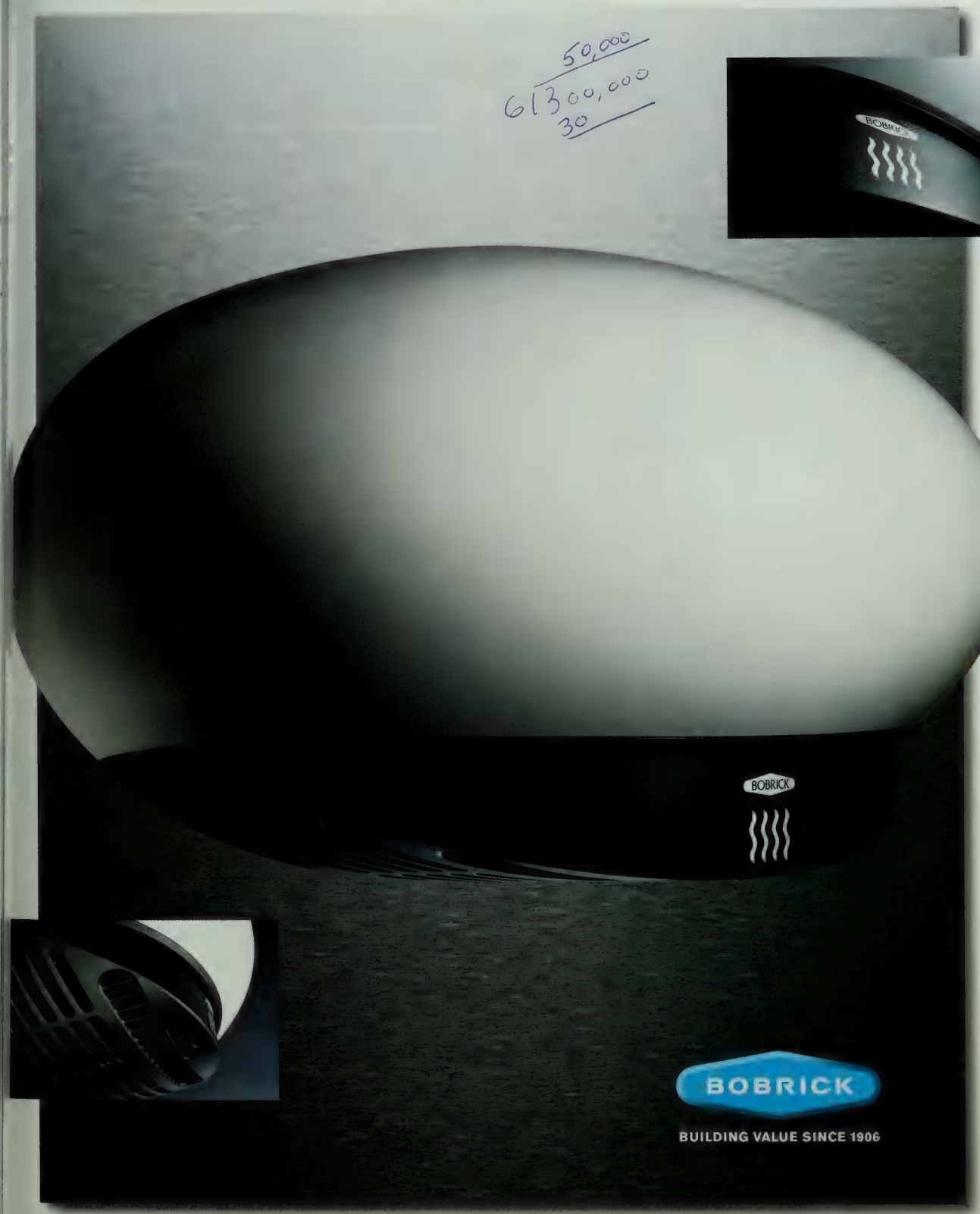
3 What a ball Ruth Waller and Lee Hewett mimic the underside of a starfi with Panamic, reproducing the sea creature's belly by hand-stitching 2,00 felted wool balls into a warm, tactile rug. Both Textiles, Welbeck, England. www.iloveboth.co.uk **CIRCLE 213**

4 Double duty Booklamp eliminate accessories. The oak table uses curve for bookends, and an integrated lamp sheds light to read by. Autoban, Istanbu www.autoban212.com **CIRCLE 202**

5 Copperwood forest InOre floor ing features metal applied to sustainab ash, oak, and walnut boards to accentu ate the grain; completely metal-coated boards are also available. Seamless Industries, Stoke Row, England. www.inoreflooring.co.uk **CIRCLE 214**

6 The lineup Track, a modular sofa system by the new company Naughton includes 15 different shape and size components. The quilted pattern in the seat—sewn by an exclusive CNC process—ties together the pieces with continuous lines. Naughtone, Leeds, England. www.naughtone.com **CIRCLE 21**

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Snapshot

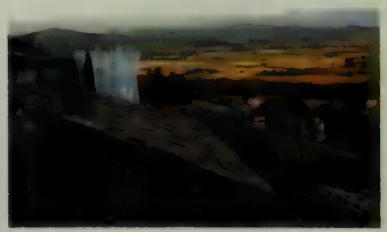


y John Gendall

A temporary installation mediates two landscapes

ombining plastic pipes with medieval limestone blocks may seem like a urious marriage, but over the summer, New York–based nARCHITECTS resided over that union. Their installation, *Wind Shape*, simultaneously taunch and ethereal, responded to its dueling site conditions and, though s presence was temporary, left an indelible impression on the landscape.

When Georgia's Savannah College of Arts and Design (SCAD) purchased a 15th-century building in the rovençal town of Lacoste, France, in 2002 as a venue for its summer program, it established an annual art xhibition in its new space. Typically hosting artists, in 2006 it chose instead to pursue a site-specific installaon. To this end, it commissioned nARCHITECTS, one of ARCHITECTURAL RECORD's 2004 Vanguard firms and hat year's P.S.1 Warm Up Competition winner.



In a direct commission without programmatic requirements, the architects were given broad artistic cense. From July to September of 2006, *Wind Shape*'s two 25-foot-high white pavilions graced a couple of



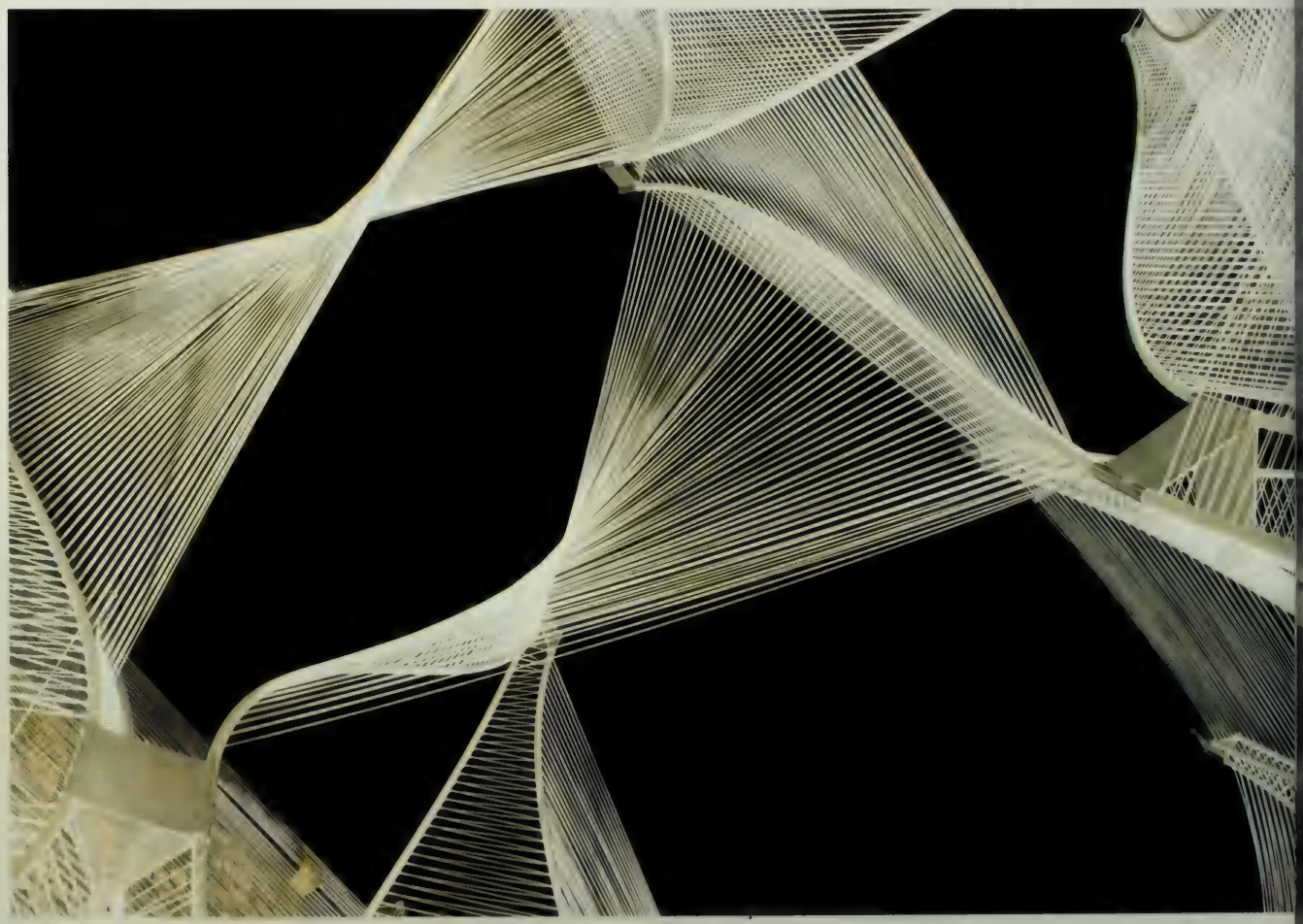
PVC pipes threaded with polypropylene string and cinched with aluminum collars emerge from this 15th-century limestone building in Lacoste, France.

roof terraces on SCAD's Lacoste building, serving as a provocative imprimatur for its summer campus and providing venues for art exhibitions, small gatherings, and chamber concerts.

A structural system of PVC pipes laced with more than 30 miles of polypropylene strings and cinched together with aluminum collars, the installation materials were no match for Lacoste, with its heavy limestone. "We chose inherently weak materials that, when put together, become a strong unit," explains Mimi Hoang, who cofounded nARCHITECTS with Eric Bunge, AIA. "Everything is interdependent." Similar to their bamboo installation at P.S.1, the architects sought to limit the structural elements in order to fully investigate the project's tectonic system.

With varied tension in the strings, the pavilions respond dynamically to subtle changes in the wind by rippling and oscillating in the breeze. Sturdy yet graceful, the structures address their two contrasting site conditions, making reference to the robust limestone townscape with their structural integrity, while responding to the gentler surrounding stretches of olive and cherry groves with their dynamic properties. "They speak to both the hard landscape and the soft landscape," says Hoang.

nARCHITECTS realized the project empirically, without engineers, making multiple prototypes in New York before building in France. The construction team comprised Hoang and Bunge, the project architect, and students from the SCAD program. As educators—Hoang at Yale and Bunge at Parsons—it was important to the architects to treat the project as an investigation that involved the SCAD students at all levels. Engaged in creating *Wind Shape*, the students not only benefited from participating in the construction process, but also from witnessing the architecture and landscape change and interact over the course of the summer. ■



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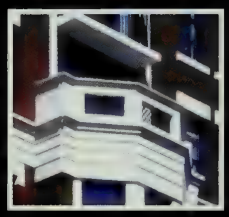
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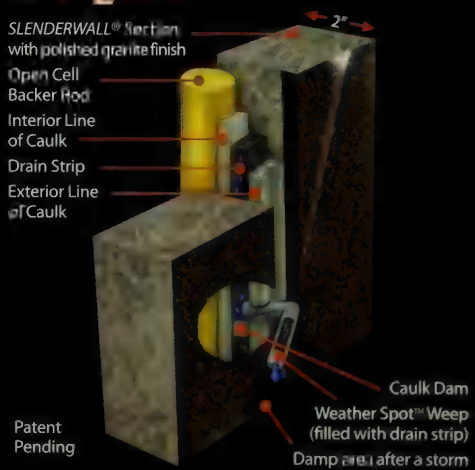


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Kraus-Anderson Construction has been Cabela's design-build contractor since being involved in the retailer's expansion launch in 1997.

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Bantam Weigh

The heavyweights may seem to get all the attention, especially as Peter Eisenman rolls out a 63,000-seat football stadium in Arizona, SOM watches the construction of its 160-story Burj Tower in Dubai, and a roster of celebrity architects generate designs for the $7 billion CityCenter in Las Vegas. But here we inaugurate a serial feature (which will appear a few times a year) dedicated to projects modest in scale and program, but great in design and craft, demonstrating that physical size is no indicator of architectural merit. While RECORD has always been an advocate of great architecture at any scale, we intend to use this feature to highlight what has been our longstanding interest in small projects.

From Bramante's Tempietto in Rome to Mies's Barcelona Pavilion, small buildings have defined key moments in architectural history because they offer an opportunity to create pure forms with exquisite det that respond to their site with utmost spe ficity. This trend proves that diminuti projects can transcend the parameters their dimensions.

In this issue, we present three uniq projects from around the world: a 20 person chapel rising from the jagg Finnish landscape, a photography stud in Northern California inspired by a arcadian barn, and a new garden pavili thriving in a historic Dutch town that fo merly had resisted new construction.

With vastly different programs, geo raphy, and stylistic approaches, what unit these projects is not only their scale, but als the architects' careful response to site an fine attention to detail.

These buildings prove that archite ture need not be size XL, but can be sma and discreet without compromising i capacity to provoke and compel. *John Gend*







A trio of projects show that small moves can make for prizefighters

1. St. Henry's Ecumenical Art Chapel
2. Photography Studio and Workshop
3. Light-Catcher

Champions

St. Henry's Ecumenical Art Chapel
Turku, Finland

Sanaksenaho Architects



FEATURE

Perched atop a hill on an island near the Finnish city of Turku, St. Henry's Ecumenical Art Chapel appears at first glance like an imposing metallic monolith closed off to the austere landscape that surrounds it. But it soon becomes clear that the copper-clad form is very much a building, actively engaged in a dynamic relationship with its environment and its visitors.

"We designed the church and its landscape so that the visitor is always in a state of approaching," says prinicipal architect Matti Sanaksenaho of Helsinki-based Sanaksenaho Architects. A path ascending the hill winds toward the building's southern elevation, where the hilltop setting offers spectacular views of the island. The visitor then walks along the chapel's edge before entering the portal, to the west. A small foyer provides a transition from the exterior to the nave, while a ramp connects the foyer and sanctuary, articulating the transition from profane to sacred.

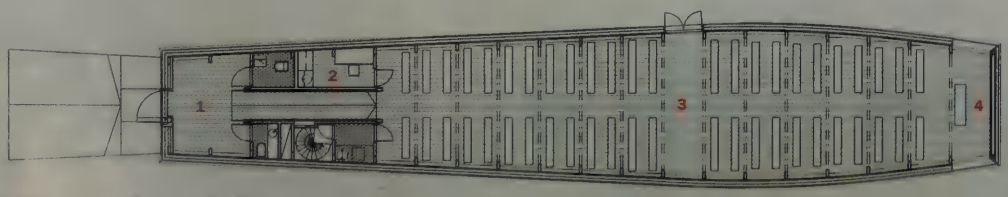
In keeping with the formal conventions of Christian churches, Sanaksenaho oriented St. Henry's toward the east and created a procession of soaring pointed arches down the nave. But from those traditional foundations, the architects gave the building a cultural and site specificity.

Completed in 2005, the 200-seat chapel draws on local materials, including abundantly and readily available wood. Reaching 36 feet high, pine trusses culminate in the pointed arches, recalling a Gothic cathedral. Laminated pine paneling encloses this load-bearing structure.

The exterior's copper skin departs from the church's otherwise traditional materials. But even though copper cladding is rare in traditional Finnish architecture, this surface forms a direct and thoughtful dialogue with its setting. As the material changes over time, it will develop a green patina meant to complement the surrounding pines. Material temporality also transforms the building's interior, where pine paneling will season to a reddish hue.

The husband-and-wife team of Matti and Pi Sanaksenaho designed many aspects of the architecture w an eye toward intensifying both spiritual and sensory ex rience. They called for pine floorboards, waxed and fixe a way that makes them creak with use. Custom wo benches, simple and backless, provide seating while keep spatial interruption to a minimum. And drawing medieval and Renaissance precedent, art is displa throughout the nave. It changes periodically, and is cho to support the liturgy.

On the long elevations, the copper cladding st short of the chapel's eastern end, allowing for a vertical st of glazing. Filtering indirect light into the interior, this fe tration gives the apse, and the altar within it, a mysti luminous quality. As Matti Sanaksenaho puts it, "We u three materials: pine, copper, and natural light." This li element underscores the designers' emphasis on the spirit experience of approach. By illuminating the altar, t signify the ultimate, ethereal, destination of the visit approach, marked simply with daylight. *J.G.*



FLOOR PLAN 0 5 M.

1. *Foyer*
2. *Prayer room*
3. *Nave*
4. *Apse*

Designed to merge with its setting over time, the church is clad in copper, whose patina will later complement the surrounding landscape. A vertical strip of glazing allows daylight to illuminate the church's altar.



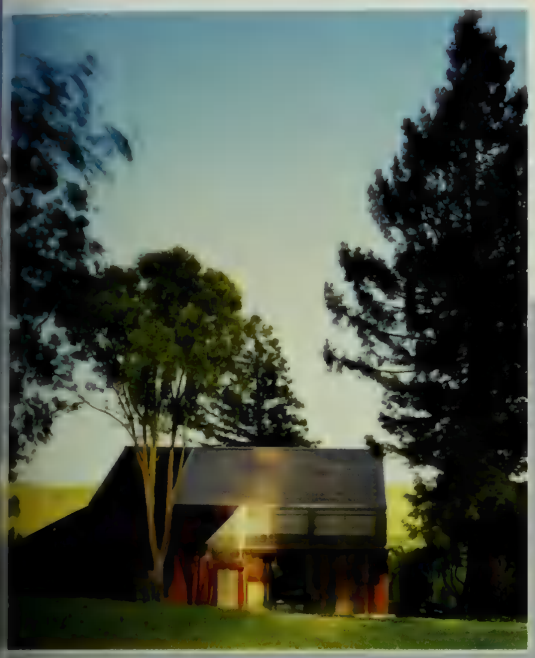




The barn panels slide to cover or uncover four large glass doors, opening up cross ventilation and end-to-end views through the building. The polycarbonate forms a double-skin assembly for large translucent sections of roof and wall.







Daylight Photography Studio and Workshop

Marin County, California

Kennerly Architecture & Planning

n a 79-acre working ranch in western Marin County, alifornia, where coastal fog rolls in from the ocean across illy grasslands, stood a 19th-century barn that its owners nvisioned turning into a photo studio. But when their chitects, Owen Kinnerly, AIA, and Sarina Bowen, found the ging farm structure too dilapidated to save, the clients ecided to demolish it and build a barnlike, 2,400-square-foot ructure on the existing footprint. The siting, however, was ist the beginning: The engagement between old and new ould go far beyond the location and the floor plan.

"All the older structures in this environment mbody a frankness of purpose and a stark relationship to ie land that is softened over time as the natural context nolds itself to them," Kinnerly observed. When the clients nowed the architect an old photo of the original barn, taken hen the surrounding cedars and redwoods (now giants) ere mere saplings, Kinnerly saw how the trees had grown p around the structure, with their branches shaped by its able. He then realized that this was the aesthetic he and his lients wished to preserve.

And preserve they did, literally and conceptually. hey salvaged 40 percent of the original siding and 30 per-ent of the floor planks. The inclusion of an elevated floor slab, an existing retaining wall, and foundation piers drilled into the ground eliminated the need for grading and minimized the building's impact on subsurface water. Near a creek between pastures, the new structure virtually floats on the land, with the majestic trees framing and shading it.

"There's nothing contrived, ornamental, or unnecessary about the design," says Kennerly. The exterior walls consist of corrugated Cor-Ten steel, corrugated polycarbonate sheeting, and large panels of the recycled barn redwood.

On the interior, a main work area rises to an office loft on one side. Stored farm equipment occupies a lower volume, separated from the main space by a partial-height wall of salvaged redwood. Crowned with a pitched roof, the central unobstructed interior volume maintains the cross-sectional proportions of the old barn. A set of muslin sails, which can be raised or lowered, help control sunlight streaming in through the translucent roof and walls. Radiant heating in the concrete floor slab and natural ventilation from the glazed sliding doors, along with fans high in the gables, contribute to the building's environmental attunement.

Typically, when you turn a barn into a habitable space for humans, you lose the character of the original farm structure because a barn needs to breathe, whereas a studio, for example, needs to insulate itself from the elements. Though the architects demolished the original barn, they translated the idea of "breathing" into the skin's layered translucencies. The glazing, its weathered wood covering, the polycarbonate panels, and Cor-Ten steel elegantly give the rough, boxy form a sense of openness, lightening the load visually.

Outside the studio, pastoral farm life continues. Occupying the land inconspicuously, the reconstituted barn serves as a symbol of regrowth, providing a modern interior, while its rough but elegant exterior defers to the agricultural vernacular. *Jane F. Kolleeny*



1. *Equipment storage*
2. *Main work space*
3. *Entry/work court*
4. *Storage*
5. *Office loft*
6. *Bathroom*



Light-Catcher
Soest, the Netherlands
rooijakkers + tomesen architecten



FEATURE

Quiet as the Dutch village of Soest tends to be, a loud protest greeted the proposed expansion of a historic house. The opposition by neighbors and town officials rose up when a couple, a dentist and a business consultant, sought to expand their 1782 home to add spaces for entertaining guests, potting plants, and working on craft projects. Preservation guidelines strictly protected both the house and its village, forbidding any expansion to the original building, not even underground interventions.

So the owners reframed their approach, turning to the Amsterdam-based firm of rooijakkers + tomesen architecten, which proposed a freestanding pavilion in place of two dilapidated barns in the clients' yard behind the house. Because these farm structures suffered from poor condition and high asbestos-toxicity levels, the architects were permitted to tear down the remains and replace them with a new garden pavilion, now known locally as the "Light-Catcher."

Considering this protective situation, partners Theo Rooijakkers and Paddy Tomesen thought it best to minimize their building's visual impact. So they submerged, below grade, one of the 1,454-square-foot pavilion's two stories and created a poured-concrete basement, lining some of its surfaces in raw larch and leaving others exposed. They placed robust timber beams across the top of the cellar, vaulting the floor above it by 20 centimeters (.66 feet), and glazed the gap along the building's perimeter, forming a clerestory strip for the lower level. This feature not only lets daylight into the basement, but makes the building glow when the lights are on at night—hence the moniker Light-Catcher. In lifting the main floor, the beams give that plane a floating appearance, especially when illuminated from below in the evening.

Over the main level, 15 larch trusses form a light structure to support a roof made of the same wood. In deferring subtly to the community's *(continued on next page)*



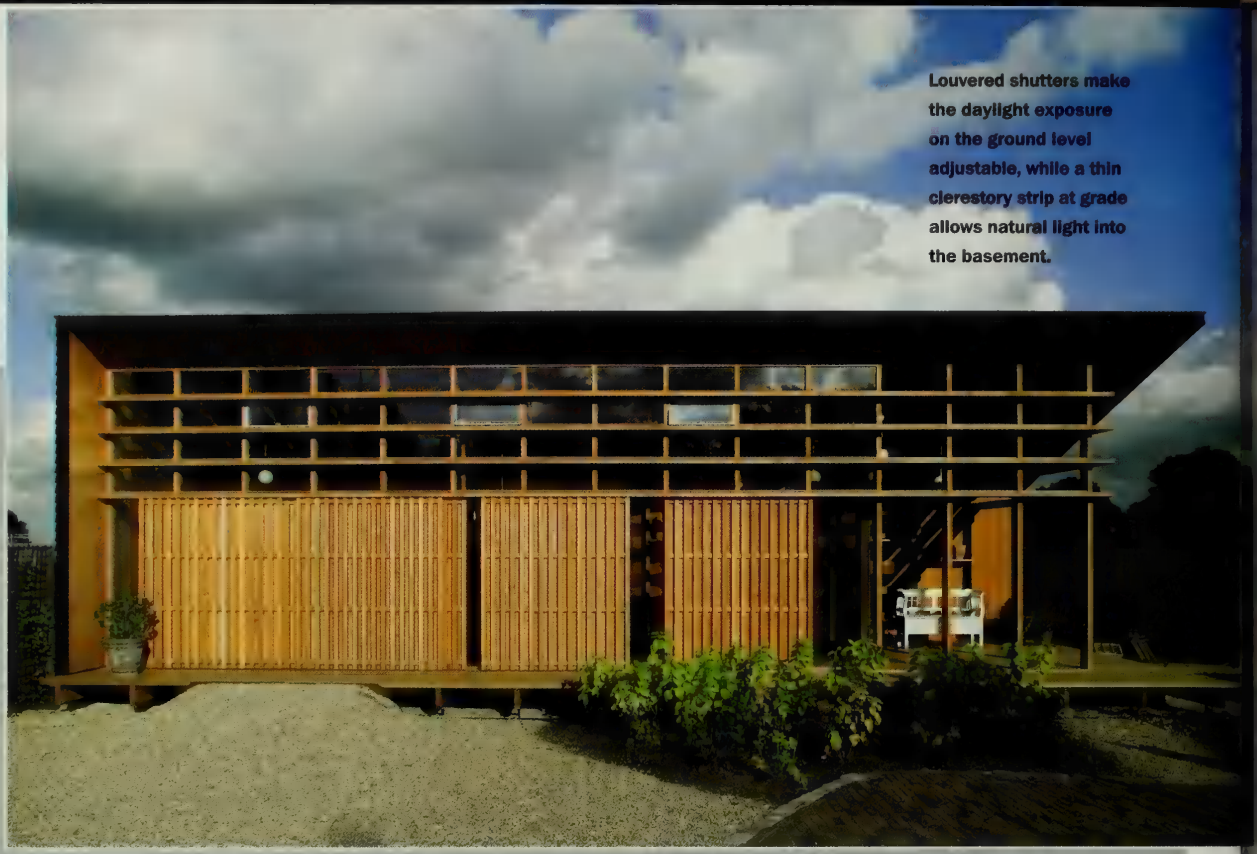
A freestanding garden pavilion adds unprogrammed space to a couple's house in the Netherlands. A terrace connected to the interior by a large doorway contributes to the pavilion's flexibility.



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Louvered shutters make the daylight exposure on the ground level adjustable, while a thin clerestory strip at grade allows natural light into the basement.

(continued from previous page) preference for status quo, the architects clad the north and west elevations, facing the town, in larch, creating enclosed facades reminiscent of one of the demolished barns.

But on the south and east sides, which open toward the couple's yard, the pavilion has floor-to-ceiling glazing, which lets the web of fine structural members stand out. Louvered shutters, integrated into the frame, allow for privacy and adjustable light levels. The glazing stops three trusses short of the pavilion's edge to provide for a covered terrace on the west side. For the interior, Rooijakkers and Tomesen integrated shelving between the trusses.

Because the pavilion is not eligible for residential zoning, the largely unobstructed indoor space remains "unprogrammed," giving the clients ample flexibility for social gatherings or craft and planting activities. A generous doorway onto the terrace, along with the adjustable shutters and the overall sense of openness, make for a flexible space that capitalizes on both the interior and exterior areas.

Intent on building with the highest level of craftsmanship, the architects spent time in the carpenters' workshop, learning how the pavilion would be built. The resulting sensible structure and fine details proved key to getting the pavilion approved by the village. In this historic setting, Tomesen concedes, "the building does not look totally traditional." But the detailed craftsmanship, modest scale, natural materials, and soft luminosity all bring the Light-Catcher into poised harmony with its surroundings. *J.G.*



GROUND FLOOR



0 10 FT. 3 M.

BASEMENT FLOOR

1. *Studio*
2. *Atelier*
3. *Terrace*
4. *Storage*
5. *Living room*
6. *Closet*



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Celebrating Real Objects in Storefronts and Treasure Houses

By Robert Ivy, FAIA



1. Musée du Quai Branly
2. MODAA
3. Modern Literature Museum
4. Kanno Museum
5. Wine Shop and Tasting Room

PHOTOGRAPHY: © ROLAND HALBE (1); JOHN EDWARD LINDEN (2); DUCCIO MALAGAMBA (3); DAICI ANO (4); ROLAND HALBE (5)

In the first decades of the 20th century, when Marcel Duchamp elevated the objects of everyday life into prominence as artworks (snow shovels, bottle racks, and even a urinal, the famous *Fountain*), the cozy, precious world of art cracked open like an egg. No longer were museums the sole precincts of aesthetics: Ideas, often tinged with irony, propelled the profane into public view and reflection. Once cracked, Humpty Dumpty's shell has never come back together again.

Today, the lines between fine art, craft, and objects of manufacture have blurred beyond discrete definition. Design seems to be the glue that binds. As formally established in 1932 with the first Architecture and Design department at New York's Museum of Modern Art, which featured industrial design along with architecture, or currently seen in retail settings such as the latest Prada store, the art of exhibition display permeates our visual lives.

It might seem that in a virtual era, when we are bombarded with too much imagery, the need to encounter the real might evanesce like so many fading pixels. However, counterintuitively, the trend to flaunt, as well as treasure, actual objects still thrives. In a cacophony of variants, we now encounter living spaces above museums displaying video installations of actual living situations, or at the other extreme, private museums rarely open to a larger public, locked and occasionally shared with a select few.

We, in the media, aid and abet this exhibition fascination, offering our own literal (on the printed page) and virtual display—of commercial objects, and of the rarified and sublime. Urinals, bottle racks, and bicycles. For a hundred years, we've been gaga over Dada. Read on.



One of Quai Branly's many facades is cov ered with 150 speci of plants, giving it the appearance of a untamed animal.

At a curve in the Seine, Ateliers Jean Nouvel erects a bold, multifaceted, and unexpected ensemble for the MUSÉE DU QUAI BRANLY

y Joann Gonchar, AIA

A museum that disappears into its surroundings would seem an unlikely goal for a high-profile project, designed by a world-renowned architect, on a prime piece of Parisian real estate. But, in a letter that accompanied his winning competition entry for new institution devoted to the display of non-Western art, architect Jean ouvel described his proposal as a "sacred wood" where "material form ems to melt away, giving the impression [of] a sanctuary without walls."

This seemingly modest vision belies the controversy that sur-unded the $266 million *grand projet* almost from the moment it was nounced by President Jacques Chirac in 1996. Creation of the museum, entually named the Musée du Quai Branly after the Left Bank boulevard at borders one edge of the site, would require that two respected French useums give up their collections. The project sparked heated debate nong curators, anthropologists, and art historians about how best to esent items as diverse as a mask from New Guinea, a Nepalese bronze uddha, or a terra-cotta jar from Central America (see sidebar, page 90).

Given its intensity, this academic debate will not likely fade away ytime soon. Nor will Quai Branly, open since June, likely dissolve into e surrounding landscape—at least not until its garden's 169 oak, maple, erry, and magnolia trees reach maturity. The 823,000-square-foot useum, despite the architect's stated aim, is anything but a background uilding: It possesses Nouvel's characteristically bold forms, but with a iversity and abundance not displayed in any one of his earlier projects.

Quai Branly is a collection of interconnected, parallel low-rise ructures that seem to emerge from the back of a group of Haussmann-a apartment buildings defining the site's western edge. The largest and ost impressive is a 700-by-100-foot, bridgelike exhibition space that urves in plan to mimic the bend in the nearby Seine. It is supported by emingly randomly placed piloti and several concrete-enclosed "silos" at camouflage vertical circulation elements and mechanical equip-ent. Nearly 30 cantilevered boxes of various sizes containing small xhibition spaces and clad in earth-toned resin panels, protrude almost

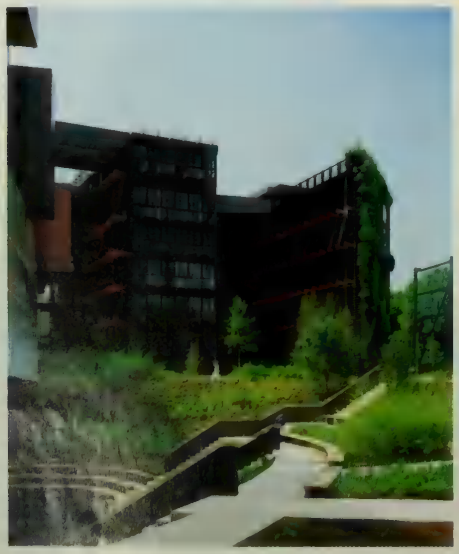


A series of parallel structures that seem to emerge from a group of Haussmann-era apartment buildings make up Quai Branly. The largest, a 700-foot-long exhibition building, follows a bend in the nearby Seine (right). A series of cantilevered boxes that contain intimate exhibition spaces protrude from this bridgelike building's north facade (below).

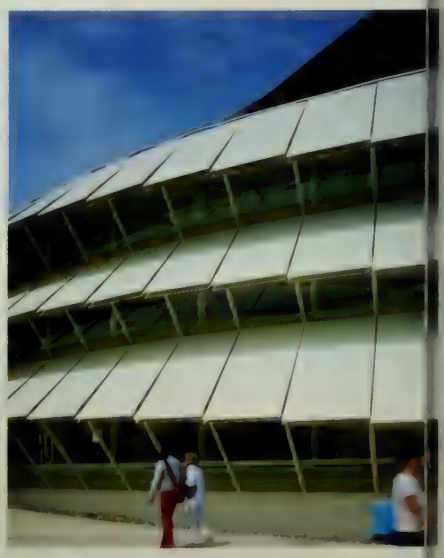


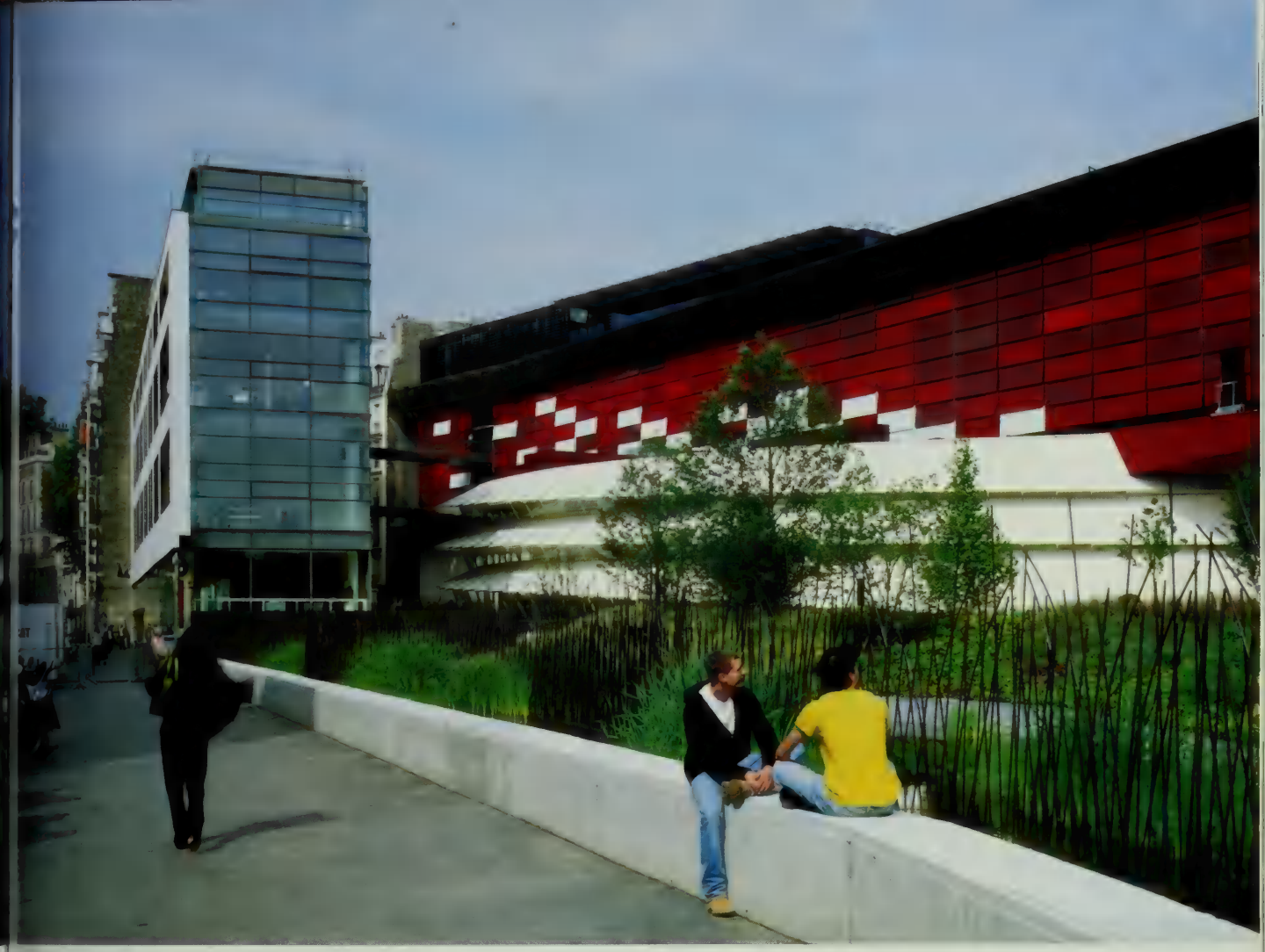
roject: *Musée du Quai Branly, Paris*
rchitect: *Ateliers Jean Nouvel—ean Nouvel, Françoise Raynaud, idier Brault, Isabelle Guillauic*
onsultants: *Ingerop (structural); TH (m/e/p); Atelier Acanthe—Gilles Clément (landscape); AIK—Yann Kersalé (lighting); Patrick Blanc (vertical garden)*
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The museum has an almost improbable diversity of facade expressions, including fixed brise-soleils (above), operable louvers (below left), projecting boxes (below middle), and a mollusk-shaped enclosure with feathered shading devices (below right).









ıe northern section Quai Branly's infor- al garden, designed ' Gilles Clément, is anted with many oak, aple, cherry, and agnolia trees. The ›uthern edge (above) cludes tall grasses ıd small ponds.

haphazardly from the building's north facade.

Three smaller structures, housing functions like administration, conservation, and the gift shop, each have their own exterior expression. The most unexpected is the 8,600-square-foot vertical garden that gives ne face of the so-called Branly building, at the northwest corner of the te, the appearance of a furry animal (see story, page 149). But even ıe most prosaic of materials are treated as an opportunity for articulaon. For example, one plaster facade with large, repetitive punched penings is embellished with a relief by Aboriginal artist Lena Nyadbi. lints of colorful ceiling frescoes by other Aboriginal painters emerge at ıe window heads.

Although Quai Branly may seem to lack the rigor of Nouvel rojects like the Cartier Foundation, in Paris, or the more recent Guthrie heater, in Minneapolis [RECORD, August 2006, page 108], its improbable ariety of colors, textures, and facade treatments coalesce to create a equence of environments. Visitors approaching from the north ncounter an almost 40-foot-tall glass wall intended to blur perception of the museum with the reflection of the trees planted on the street and the river front. A gently undulating path leads through the informal garden designed by Gilles Clément, planted with tall grasses and flowering trees. To reach the entry, guests follow this rambling route under the main exhibition area and around a mollusk-shaped volume enclosing the temporary exhibition galleries.

The all-white and daylight-filled lobby, with a ramp that circles a multistory, glass-enclosed musical instrument conserve, is vaguely reminiscent of New York's Guggenheim Museum. But this almost familiar museum environment gives way to one that is less typical and slightly disconcerting: a straight ramp that is dark, gradually narrowing, and tunnel-like.

This compressed circulation space leads to a double-height, but also dimly lit, exhibition hall. Direct daylight is sharply limited by the south wall's brise-soleil system. The already indirect north light is further attenuated through a wood-and-glass curtain wall imprinted with images of jungle foliage. Spotlights illuminate the objects on display but little of the surrounding environment. Although some visitors have complained of needing a flashlight to navigate, the low lighting levels are necessary for the conservation of the collections, according to the architect, and are part



Quai Branly: Jacques Chirac's *Grand Projet*

By François Chaslin

Presidents of the Republic of France have long marked their tenures in office by erecting a cultural monument in Paris, a tradition that Jacques Chirac followed with the recent opening of a museum for the display of non-Western art. The June 2006 event came at a difficult time for him politically, with his popularity at a record low of 27 percent, after 10 years in power.

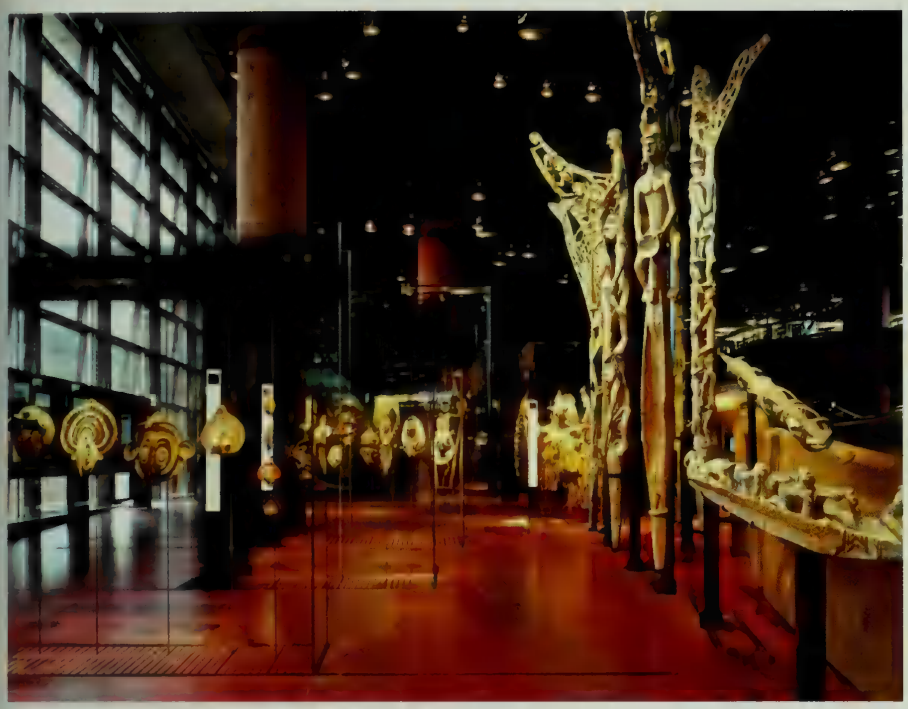
Although the completed building has been received in an atmosphere of relative reconciliation, when planning for the project began in 1996, the museum was the subject of heated debate: Does a Western country like France, where the sacred seems to be hidden within the realm of aesthetics (and market value), have the right to enjoy a heritage that may have been pillaged, or at least uprooted from other countries? Is it appropriate to display as works of art objects that had been removed from their ancestral use? Furthermore, does universal beauty exist? Is art timeless, recorded "outside history, and outside chronological time," as claimed by André Malraux, who served as France's first minister of culture in the 1960s?

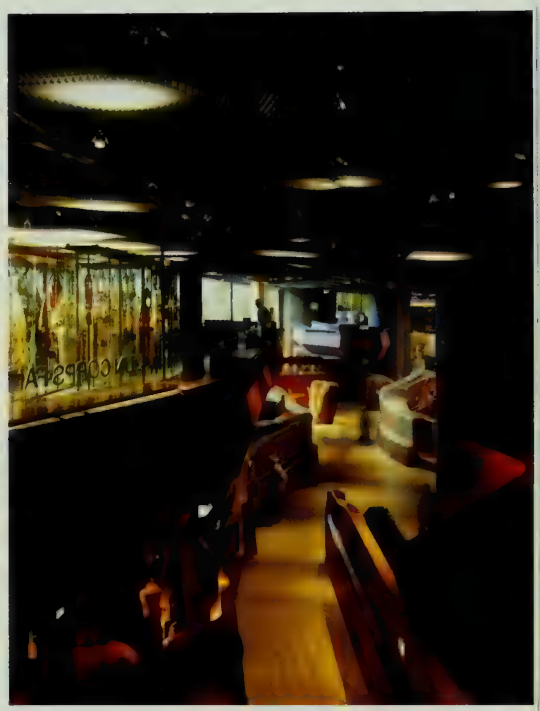
The institution was originally to be called the Museum of Art and Civilization, and then the Museum of Primitive Art. However, *primitive* has too many—and often pejorative—connotations. Furthermore, the collection contains objects from Islamic and Oriental civilizations that do not fall into that category. Officials finally decided to baptize it the Musée du Quai Branly, based on its address, and no doubt with the intention that the building will one day bear the name of Chirac, if his presidency is not overly weakened.

The late collector of ethnic art Jacques Kerchache had long fought for an institution of this kind, and he is widely credited with giving Chirac the idea for the museum. In 1990, Kerchache published a manifesto titled "The World's Masterpieces Are Born Free and Equal," inspired by the first article of France's 1789 Declaration of Human Rights.

The proposed museum was denounced by ethnologists as the project of a lobby of collectors. Anthropologists were not sympathetic to removing objects from their cultural contexts or to categorizing them as art. There were also other reasons for opposition. The Musée de l'Homme and the Musée des Arts d'Afrique et d'Océanie were asked to give their collections to Quai Branly: 235,000 pieces from the former, and 22,750 from the latter.

In 2000, Kerchache selected more than a hundred of these works, perhaps the most beautiful, for display in the Louvre Museum's Sessions Pavilion. They will remain exhibited there, because, as Chirac has explained, "The Louvre bestows prestige and renown: It would be unfair to deprive entire civilizations of that [status]." At Quai Branly, about 3,500 works, including





The vast, dimly lit exhibition space is organized around a zone that the architect calls "the river." This meandering circulation spine is defined by sculptural, leather-covered partitions that contain seating and interactive displays (opposite and right). Many of the handsome vitrines are glazed on all four sides (above).

sculptures, masks, and textiles, are exhibited from its collection of more than 260,000 objects.

In late 1999, following an international competition, Jean Nouvel was named Quai Branly's architect. His scheme was well received at the time, but his ponderous statements expounding a "specific" architecture, intended to reveal "geographies, histories, colors, vegetation, horizons, [and] lights," and above all, the multicolored and composite character of the building as it was rising on the site, left many observers perplexed. They adopted a wait-and-see attitude.

Nouvel himself agreed. "It is the least comprehensible building I have built," he explained a few months before the opening. "It will be in the middle of its site, surrounded by oak trees and maples, together with the plum and magnolia trees that are already flourishing, [creating] a system of filters," he said. "The glass wall separating it from the quay will reflect the trees, and graphics such as graffiti, text, posters, and images will be superimposed on it. It will have a presence that few can foresee."

The building's first characteristic is the absence of readability or structural "truth." From the earliest stages of design, the architect wanted to exclude "Western contingencies," such as staircases, exposed structure, projectors, vitrines, and explanatory text, to make the museum a "unique and strange place, poetic, and troubling." Its impressive steel structure, for example, is revealed only surreptitiously, and a little clumsily, in the great entry hall.

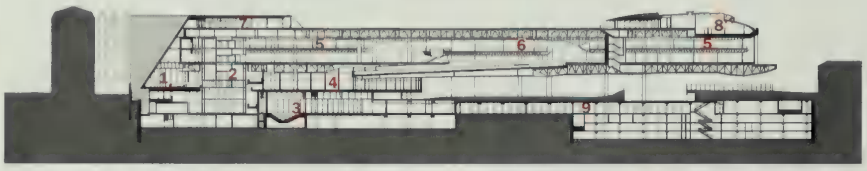
Nouvel delivers a completely masked building—a kind of Harlequin costume. Here, there are triangular facets; elsewhere, diamonds; over there, overhanging colored boxes; and mosaics everywhere, from the garden to the facades to the linoleum floor of the galleries.

This succession of facades, projections, and concave sections seems a bit arbitrary. But one should consider the museum as a series of parallel elements, some autonomous, others integrated, which come together to form an enormous building-as-bridge stretching across the garden.

In order to compose what he calls a "subjective space," Nouvel has invested his knowledge, energy, mannerisms, and his usual plethora of ideas. One could conclude that the project lacks maturity, that it suffers from too much narrative intention and too many exotic associations. But he has produced a kind of ambiguous, mental landscape, in which visitors wander among the works, sometimes touching them. Nouvel has brought care to the placement of each object, and he also designed the large, thickly glazed vitrines. Instead of "enclosed trophies," Nouvel wanted to create "a reconstructed landscape, harmony, and a sacred place [where] works are not captive, but welcome."

Like his architect, the museum's president, Stéphane Martin, insists that Quai Branly does not constitute "a catalog of the planet's cultures," but rather, "a landscape, with variations, colors, and sounds." Indeed, the friendly "*Bon voyage!*" with which the staff greets visitors seems more appropriate for use at an airport or a theme park, rather than a museum lobby.

François Chaslin is a critic and a professor at the École Nationale Supérieure d'Architecture Paris-Malaquais. His weekly national radio show is devoted to architecture, and he has written several books about contemporary architects.



SECTION A-A

0 30 FT.
9 M.



SECTION B-B

1. *Entrance lobby*
2. *Musical instrument collection*
3. *Theater*
4. *Temporary exhibits*
5. *Suspended gallery*
6. *Multimedia mezzanine*
7. *Media library*
8. *Restaurant*
9. *Storage*
10. *American exhibits*



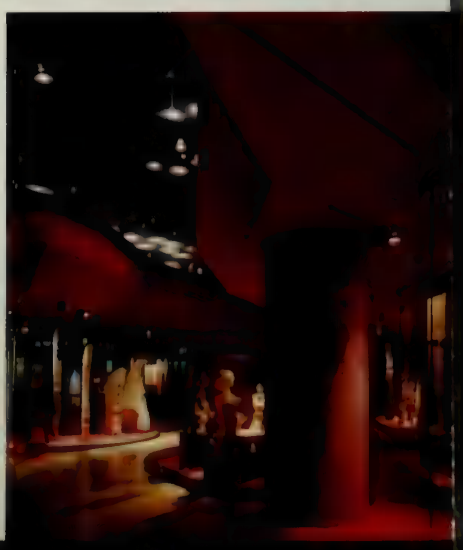
MAIN GALLERY LEVEL



SECOND LEVEL

1. *Musical instrument collection*
2. *Oceanic exhibits*
3. *American exhibits*
4. *African exhibits*
5. *Asian exhibits*
6. *"The river"*
7. *Conservation studio*
8. *Administration*
9. *Suspended gallery*
10. *Multimedia mezzanine*

The exhibition space's palette enhances its darkness. Various earthy, light-absorbing colors, like blood red, indigo, and ocher, are used throughout the exhibition space to define zones representing different continents.





Three platforms with irregular contours seem to float like islands one level above the main exhibition floor. One mezzanine contains multimedia research stations, while the two others provide space for changing exhibitions.



Objects from Quai Branly's collection of 9,000 musical instruments that are not displayed on the exhibition-hall floor are stored in a 75-foot-tall, elliptical tower that runs from the museum's basement, through the lobby, and up to the gallery level. Although visitors cannot enter the space, they can appreciate the collection from afar, through its curved glass wall.







Dance, music, and theater programs are presented in a 500-seat hall (top left). The nearby Eiffel Tower is echoed by the restaurant roof (above left). Frescoes by Aboriginal artists adorn some spaces (above right).

of a strategy "to steer us away from our rationale and our cultural reflexes so we can encounter the objects and allow them in."

In place of a customary museum environment, Nouvel has created a "fictional map" with the collections organized by geographic origin using devices that are, at times, contrived. Zones representing different continents are distinguished by blood red, terracotta, indigo, and ocher linoleum floors. A meandering central circulation spine, which the architect calls "the river," is defined by sculptural, leather-covered partitions containing benches and interactive displays. Suspended galleries with irregular contours, or "islands," float above the main exhibition level and extend the landscape metaphor.

The effect is dramatic, but the gimmicks come dangerously close to parodying the civilizations the museum is intended to showcase. Nevertheless, the objects hold their own in the theatrical environment, and Nouvel's thoughtful design for the vitrines is largely responsible. These display cases, many of which are glazed on all four sides so the contents can be examined in the round, are spare, sober, and handsome. Especially successful are the environments created within the north facade's protruding boxes. Although they are all sized differently, most are just big enough for a few stunning objects and one or two visitors. Others function as display niches with guests viewing the contents from the main exhibition floor.

Although the projecting rooms are intimate, and the vitrines elegant, these gestures will not be enough to placate those who like cool and calm museums that take a back seat to the objects they contain. Quai Branly will also frustrate visitors who like copious contextual information and explanation. But those willing to set aside their preconceptions should enjoyably lose their way in Nouvel's idiosyncratic landscape. ■

Sources

Foundations: *Intafor Spie Fondations*

Structural work, waterproofing: *Bouygues*

Projecting box facades: *Trespa*

Display lighting: *Cegelec*

Vitrines: *Unifor*

Elevators: *Otis*

Blinds and shades: *FMD*

Painting: *Debuschère*

Auditorium seating: *Quinette Gallay*

For more information on this project, go to Projects at **archrecord.construction.com**.



Motorists whizzing by on Washington Boulevard see a variegated facade of cement-board boxes crowning a glass curtain wall that reveals a bustling interior.



PHOTOGRAPHY: © JOHN EDWARD LINDEN

Studio Pali Fekete architects imagines a new version of the L.A. dream with its multitasking MODAA



By Russell Fortmeyer

The Culver City that Zoltan Pali, FAIA, and Judit Fekete found in 2006 when they moved their home from Venice, California, to this nearby Los Angeles suburb looks nothing like that found by Eric Owen Moss more than two decades ago. Moss inherited a vast postindustrial landscape of warehouses he contorted with twisted decoration conveying the contemporary urban confusion that was 1980s Los Angeles. Pali and Fekete's quieter, more fully resolved project, the Museum of Design Art and Architecture, or MODAA, builds on a foundation rejuvenated by Moss's ongoing, formally wild urban interventions, as well as a host of other celebrated projects throughout the city.

But behind MODAA's assured, checkerboard facade, a programmatic complexity lurks. In their design of the 46,000-square-foot building and garage, Pali and Fekete combined nearly everything they wanted in their life under one roof—a sprawling residence for themselves and their two boys; live/work lofts for creative neighbors; spacious design

Project: *Museum of Design Art and Architecture, Culver City, California*
Architect: *Studio Pali Fekete architects—Zoltan Pali, FAIA, design principal; Judit Fekete, principal in charge; Gregory Stutheit, AIA, project manager*
Engineer: *John Labib (structural)*
Exterior lighting consultant: *Kathy Pryzgoda Lighting Design; Kinetic Lighting*

offices for their growing architecture practice, Studio Pali Fekete architects (SPF:a); sleek galleries to show their favorite artists; and a diminutive, yet comfortable neighborhood restaurant, Wilson. With Southern California land at a premium and vanishing opportunities for young architects to experiment with building their own homes, MODAA represents a fundamental revision of the famous Los Angeles dream of the single-family residence. And it's not a notion lost on its architect-developers.

"This is our lifestyle, and we just put it into our architecture," Fekete says, sitting in the couple's 3,600-square-foot loft. "It's a little bit sick—I mean, you never have to leave." Fekete and Pali's four-bedroom, four-bath residence combines two units, which leaves six 1,800-square-foot lofts the couple rents out as live/work spaces. To qualify, occupants must maintain a Culver City business license; already, the building counts a producer, a marketing strategist, and Wilson's chef as occupants. Connected by an exterior corridor, each loft includes a full kitchen, bathroom, flexible living space, an enclosed room for a bedroom or office, and a mezzanine. While similar materials surface in each loft, such as sealed, unpolished concrete floors, exposed wood truss ceilings, and white gypsum board walls, the couple softened the industrial edge of their own home with rift-cut white oak veneer for cabinets and woodwork.

Negotiating boundaries defines the building in more ways than one—between polished and rough finishes, private and public spaces, and gentrified and emerging neighborhoods. The private spaces occupy the second floor, which allows the first floor to open up as a fluid, double-height field that includes the SPF:a offices to the east, the clean gallery spaces for the museum in the center, and the tightly contained restaurant to the west. A sealed, unpolished concrete slab unites the entire floor, which abuts the street with a lively glass curtain wall that adds some lively moments to an otherwise impermeable streetscape. The building comes to life on nights when SPF:a hosts gallery openings, which are popular in L.A.'s design community.

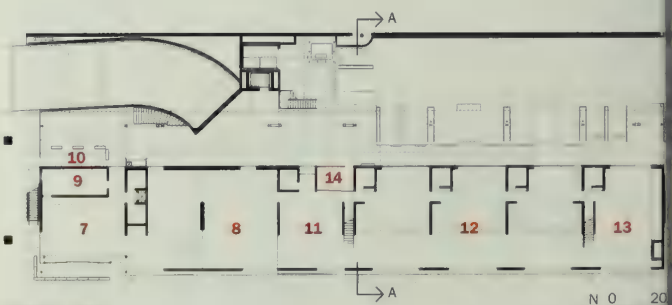
1. *Exterior corridor*
2. *Loft*
3. *Office level*
4. *Office mezzanine*
5. *Parking garage*
6. *Surface parking*
7. *Restaurant dining*
8. *Museum/gallery*
9. *Restaurant kitchen*
10. *Dining patio*
11. *Office reception*
12. *Open office*
13. *Shop*
14. *Conference room*
15. *Living/dining room*
16. *Bedroom*
17. *Master bedroom*
18. *Family room*
19. *Closet*
20. *Typical loft unit*



SECTION A-A



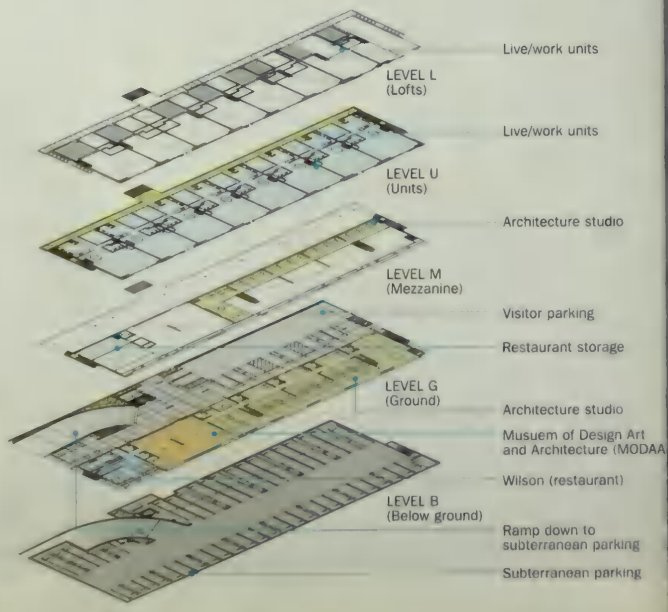
UPPER FLOOR

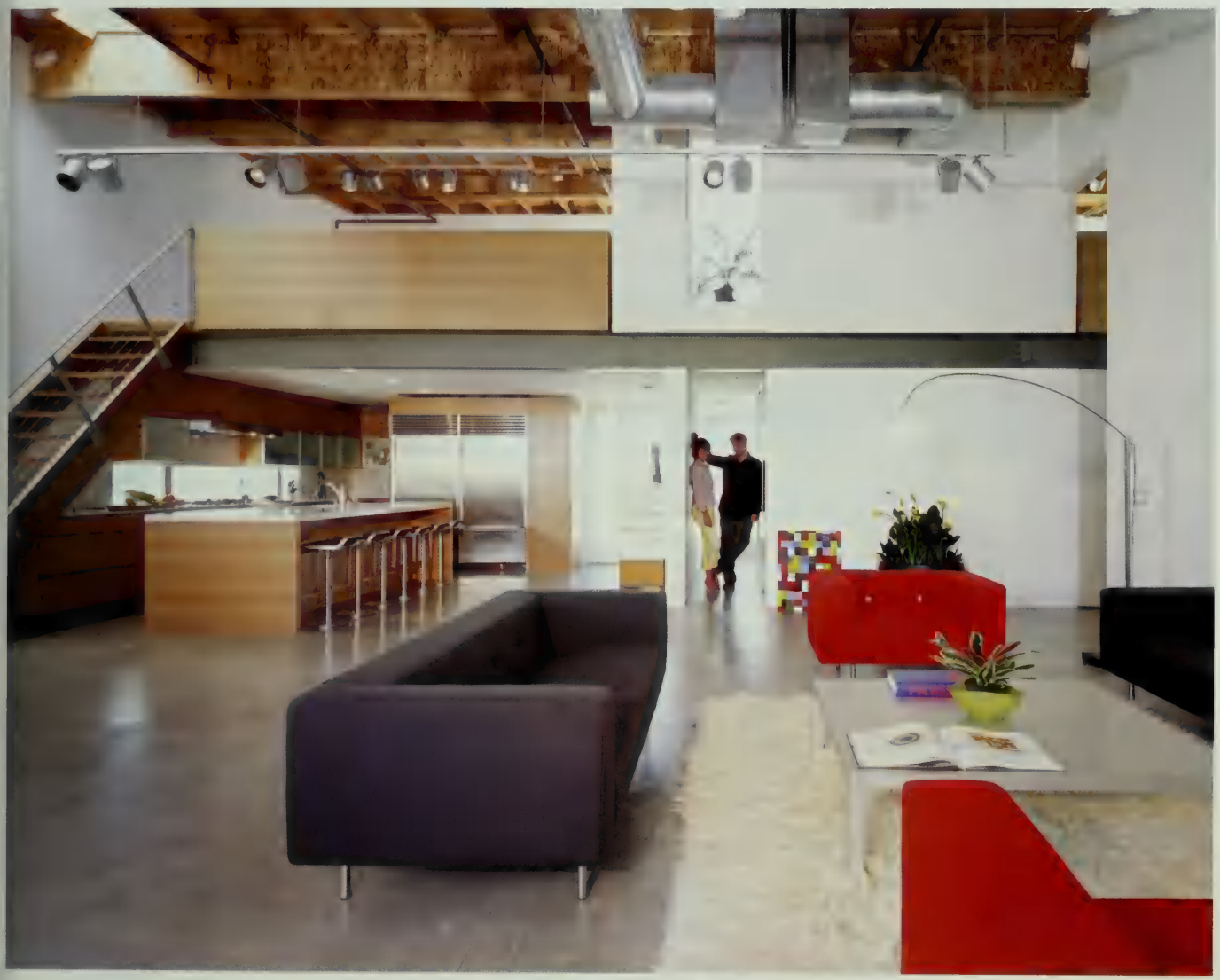


FIRST FLOOR

The continuous, vertical terrain of the facade—where the push-pull effects of the fluctuating boxes (varying between 8 and 16 inches from the surface) play with the city's A-list sunshine—lends the building gravitas without resorting to what Pali views as a typically L.A. penchant for unchecked individualism. "This town is all about the optimism of the individual," Pali says, suggesting that many architects get caught up in romanticizing the city's endless possibilities for invention. "I like to say this project is urbanism without romanticism." The rain screen consists of cement-board panels attached to metal-stud-framed boxes, which in turn connect to galvanized metal channels that run in vertical strips along the waterproof-membrane-covered plywood sheathing. The plywood surface, which acts as the building's true exterior, is mounted on a conventional steel structure. The 1-inch gap between the membrane and the boxes encourages natural ventilation in addition to allowing water to flow through. The two architects based the pattern on a purely visual rhythm that shifts across the front from various whites to a pale yellow and shades of gray. In a review with the Culver City Cultural Affairs Commission, Pali says he compared the design to art: "After one of the reviewers dismissively said art had to be emotional, I said that I guessed Piet Mondrian's work is not art." The building won landmark status.

Aside from the thorny matters of Culver City's public art program

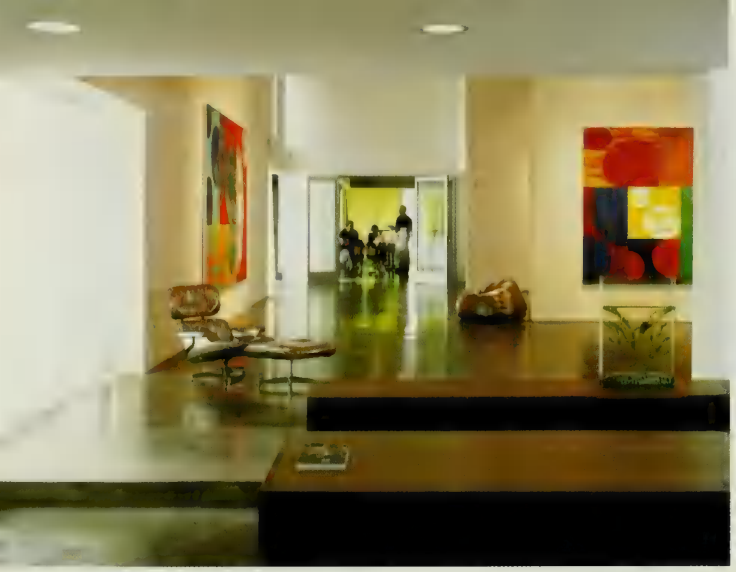


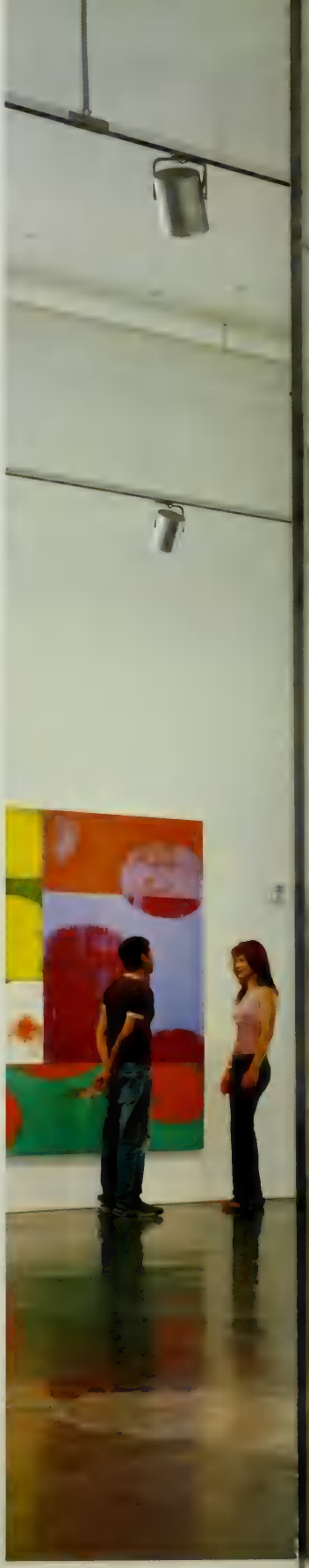




Pali and Fekete (above) combined two units for their double-height residence. The offices for their firm (left) are filled with custom-built casework and ample daylight. The restaurant, Wilson, includes a lively mural (below).







The gallery of Pali and Fekete's MODAA (left and right spread) hosts rotating exhibitions that attract crowds at openings. The show pictured here included paintings by Chuck Arnoldi and stainless-steel sculptures by Cheryl Ekstrom.

(a battle Moss fought successfully many years before), Pali and Fekete have grounded their business in practical matters. They established themselves by working either behind-the-scenes or as architects of record on a number of high-profile L.A. projects, including Rafael Moneo's 2002 Cathedral of Our Lady of the Angels [RECORD, November 2002, page 124], and Machado and Silvetti's 2006 Getty Villa [RECORD, May 2006, page 106]. Pali, though FAIA, has no degree in architecture, but learned the discipline working with California Modernist Jerry Lomax, FAIA, and founded his own firm in 1986. He later met Fekete, who officially joined him in 1991, before the firm moved to a Culver City building only a few blocks away from MODAA. The two share Hungarian roots—he was born in L.A. to Hungarian immigrants, while she left a career as an architect in Hungary to become an au pair in Minneapolis prior joining an L.A. architecture firm.

Fekete mostly manages the business side, leaving Pali to tend to design. He shuffles between multiple projects to keep the firm's architects busy. In addition, the two worked together as first-time developers on the roughly $4 million MODAA project, a gambit so successful city officials recently selected the two from an open request for proposals to repeat the model for a mixed-use development in Culver City's thriving downtown.

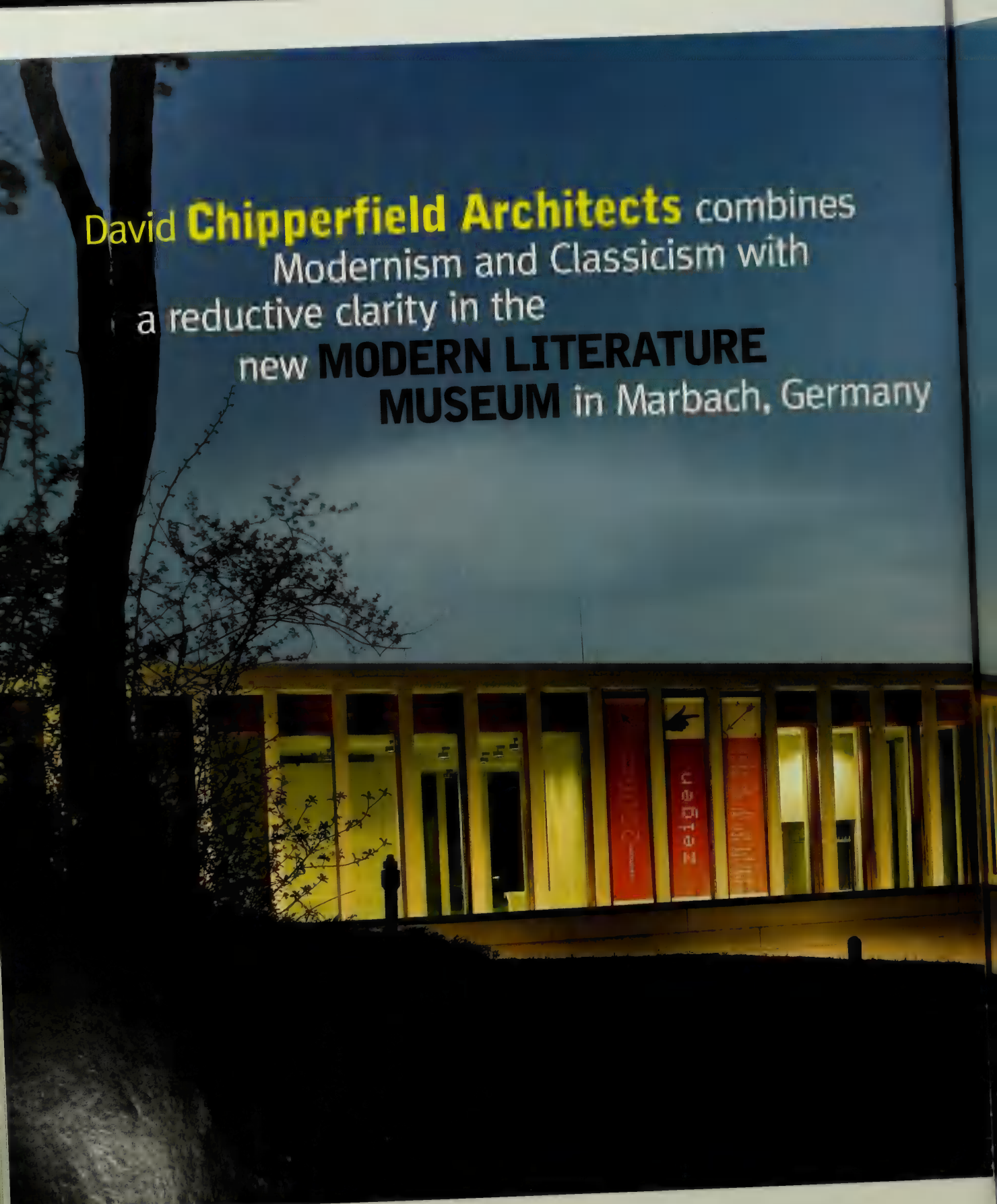
For decades, liminal urban zones like Culver City defined the gritty image of L.A. as a laboratory for experiments in architecture and lifestyle. Artist's studios, galleries, artisan's workshops, performance spaces, and, yes, even the architecture of Eric Owen Moss stealthily advanced the rich cultural landscape of Culver without contributing to its urban evolution outside of making the neighborhood safe for risk-averse developers. Like much traditional urban growth in L.A., this early redevelopment in Culver City achieved starts and stops as a kind of drive-by architecture, but it accomplished little in the way of shaping a genuinely accessible pedestrian city. Though perhaps not the first such instance in the Culver area, MODAA represents dramatic change in programmatic scale and ambition for the neighborhood. It suggests architects like Pali and Fekete increasingly take their roles as urban designers as seriously as they do form-making. In L.A., that dream has been a long time coming. ■

Sources

Exterior cladding: *SlateScape Xtreme Cement Panels*
Windows: *Fleetwood; Milgard*
Doors: *Arcadia (entrances); Haley Architectural Doors (wood); Fleetwood (sliding)*
Office chairs: *Aeron by Herman Miller*
Cabinet hardware: *Häfele; Blum; Accuride*

For more information on this project, go to Projects at **archrecord.construction.com**.





David **Chipperfield Architects** combines Modernism and Classicism with a reductive clarity in the new **MODERN LITERATURE MUSEUM** in Marbach, Germany



On a plateau overlooking the Neckar River, David Chipperfield designed the new literature museum adjacent to the neo-Baroque National Schiller Museum (above).



From the southwest terrace (below), the museum looks as if it is one-story high. On the east side (bottom), the terrace is revealed as the roof of a lower exhibition level.



By Suzanne Stephens

The hauntingly austere Literaturmuseum der Moderne (Museum of Modern Literature) in Marbach, Germany, attains a purity of form employing both Modern and Classical architectural precedents. Interestingly, this spare, rectilinear facility, devoted to enhancing Germany's cultural patrimony, was designed by a British architect, David Chipperfield. Like James Stirling with his Neue Staatsgalerie in Stuttgart of 1984 and Norman Foster and his renovation for the Reichstag in Berlin in 1999, Chipperfield and a number of "*britischer Architekten*," as *Architectural Review* notes in its April 2006 issue, have been leaving a redoubtable imprimatur on Germany's landscape.

While Chipperfield's reputation is solidly Modernist, it is ironic that the scheme he developed with his project architect, Alexander Schwarz, for the literature museum manifests Classical impulses at the very moment in architectural culture when a formidable divide separates unreconstituted Modernists and diehard Classicists. Instead, the design harks back to Germany's own Modernist heritage: It is as if Chipperfield and the German-born Schwarz had channeled Mies van der Rohe's acknowledged Classical tendencies, and through them tapped into the legacy of the Romantic Classical masters of 18th-century Germany—Friedrich Gilly, Leo von Klenze, and Karl Friedrich Schinkel.

The road to Marbach began in Berlin, where Chipperfield himself has been working for almost 10 years. In 1997, the London-based architect won the prestigious commission to execute the master plan of the city's historic Museum Island, including the renovation of the Neues Museum, designed in 1859 by Friedrich August Stüler. After he opened an office there, Chipperfield began to search for commissions elsewhere in Germany. Schwarz, the Berlin office's design director, who grew up near Marbach, convinced him to enter an open competition for the new literature museum in the picturesque town not far from Stuttgart. Although Chipperfield usually shies away from such competitions, he entered and won—albeit after the first round was tossed out.

The client, the German Archive of Literature, had decided it needed a new structure to display manuscripts and first edition books of the modern era in Germany, with a goal of attracting a larger public than scholars and professionals. The Modern Literature Museum would form the third component of a unique compound centered around the National Schiller Museum, a neo-Baroque schloss designed by Ludwig Eisenlohr and Carl Weigle in 1903 to honor Friedrich von Schiller, the eminent literary figure who was born in Marbach in 1759. A separate research and collections center, the German Archive, a contorted, craggily Brutalist-Modern affair, was added in 1973 by Jörg and Elisabeth Kiefner and





The complex includes the 1903 National Schiller Museum (top), and the 1973 German Archive of Literature (site plan). The literature museum is wrapped by precast-concrete columns on the upper level to form loggias (above) opening onto terraces.

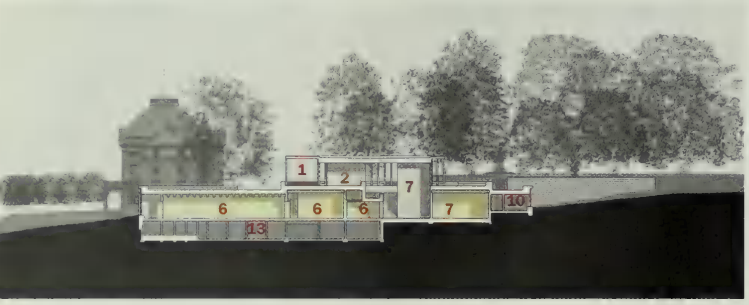


1. *Modern Literature Museum*
2. *National Schiller Museum*
3. *German Archive of Literature*
4. *Research housing*
5. *Meeting hall*
6. *Schiller Grove*

Project: *Museum of Modern Literature, Marbach am Neckar, Germany*
Architect: *David Chipperfield Architects (Berlin office)—David Chipperfield, principal; Alexander Schwarz, design/project architect*
Client: *German Archive of Literature*
Architect for site supervision: *Wenzel + Wenzel*
Engineers: *Ingenieurgruppe Bauen (structural); Jaeger, Mornhinweg + Partner (mechanical); Ibb Burrer + Deuring Ingenierubüro (electrical)*
Exhibition design: *Element GmbH*
Lighting design: *Mati AG; CH Adliswil*

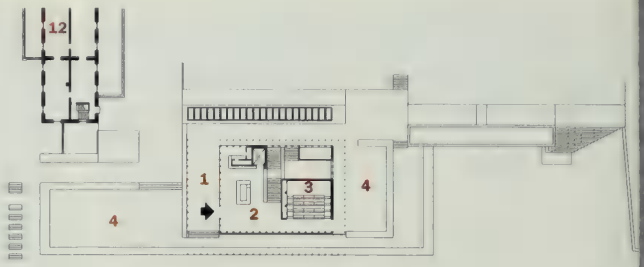


NORTHWEST ELEVATION



SECTION A-A

0 30 FT.
9 M.



GROUND LEVEL



LOWER LEVEL

1. *Entrance loggia*
2. *Reception*
3. *Auditorium*
4. *Terrace*
5. *Lower-level foyer*
6. *Permanent exhibitions*
7. *Temporary exhibitions*
8. *Gallery*
9. *Store*
10. *Ancillary space*
11. *Archives*
12. *National Schiller Museum*
13. *Mechanical equipment*



Sandblasted precast-concrete columns and horizontal slabs for the podium are formed of an aggregate that combines limestone chips and Jurassic and Isar sand, giving the building a mellow white hue. "Working out the dialogue of vertical and horizontal elements against a rolling horizon was challenging," says design architect Alexander Schwarz.

Wolfgang Lauber for a site just to the north of the Schiller Museum.

The entire complex sits in a parklike setting overlooking the Neckar River—a pastoral landscape (except for some industrial development) that seems plucked from a late-18th-century painting by Caspar David Friedrich. Since the Schillerhohe, as it is called, includes housing for researchers built in the 1990s and a civic hall erected in the 1950s for Schiller events, the conglomeration of variegated architecture did not encourage any futile gestures on the part of architects to tie the whole together with a certain style. Discretion clearly seemed to be the most appropriate response. Instead, the challenge for Chipperfield lay within: the 20th- and 21st-century books and manuscripts to be displayed were not as visually magnetic as, say, a museum installation of large oil paintings or marble sculptures. On top of that, the objects had to be housed in dimly lit (50 lux) spaces to protect them from daylight. In order not to create a gloomy or claustrophobic environment, Chipperfield says, "We tried to expand the sense of enclosure with extra layers of outdoor terraces that take advantage of the German-Tuscan landscape."

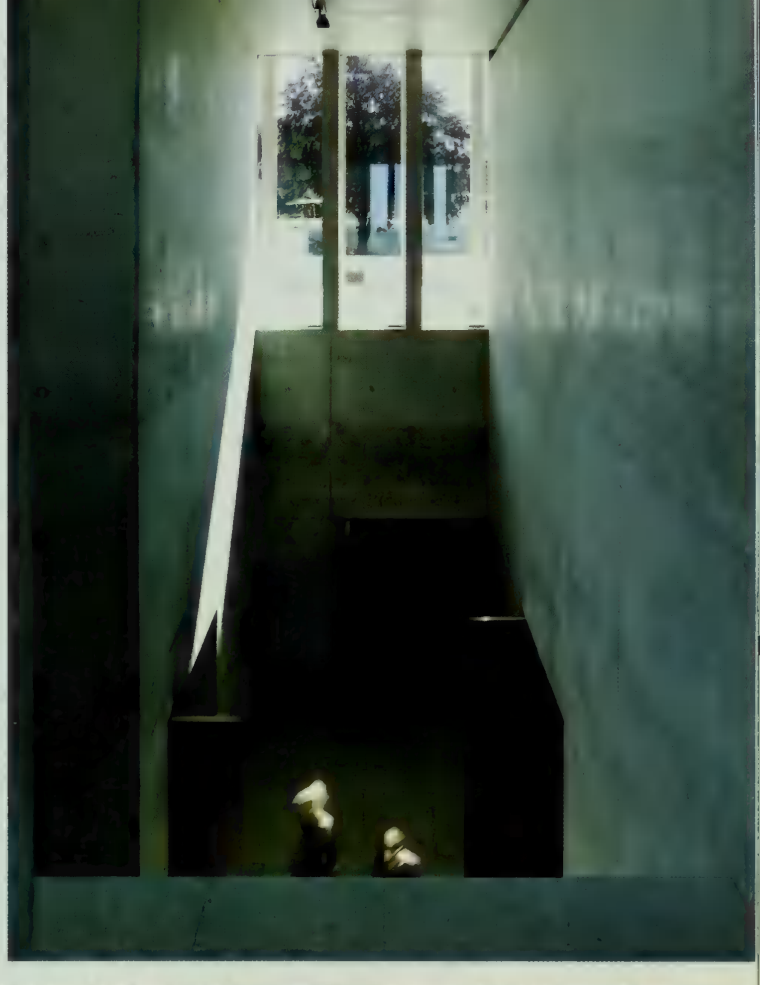
Given a 75,440-square-foot site, the architects came up with a temple-on-a-podium scheme, where the base would contain six exhibition galleries, totaling 10,763 square feet. Although the parti may remind some of Mies van der Rohe's National Gallery in Berlin, where a crystalline glass-and-steel exhibition pavilion sits atop a base of windowless galleries, at Marbach the lower level galleries are revealed as the hill slopes down to the south and west. As Chipperfield notes, "We wanted the base submerged, but handled so you would still be aware that architecture is there."

The scheme nicely evokes Mies's own Classical precedents, such as Friedrich Gilly's unbuilt monument to Friedrich II in Berlin of 1797, where the base was to contain the sarcophagus, and Karl Friedrich Schinkel's polychromed palace projected in 1834 for a site on a rocky promontory overlooking the Black Sea at Orianda, in the Crimea. But perhaps the most arresting antecedent to Marbach is Leo Von Klenze's Walhalla, built in 1842 near Regensburg as a memorial to German history. With its grand view of the Danube, its stepped terraces, and stripped-down Doric Classicism, it memorably proclaimed Germany's link to ancient Greece.

In a sparer manner, Marbach's roof terraces, podium walls, and parapets, formed of large horizontal slabs of sandblasted precast concrete with a limestone aggregate and stringently linear, precast-concrete colonnades, also create an impressive, if more discreet, shrine to Germany's modern literary legacy. The screen of columns, without capitals or bases, wrap the ground-level entrance lobby as if it were the cella of a temple on an acropolis.

On the lower level, embedded in the earth, the columns more frequently turn into thick mullions for glass window walls or pilasters set against the solid panels, fostering the perception of another level of colonnades. In designing the 38,800-square-foot museum, Chipperfield deliberately wanted the "ambiguous repetition" of freestanding columns merging into slightly detached columns, or pilasters and mullions. While the load-bearing facade may be "anachronistic," Schwarz adds, "it's a solid way of building. With no expansion joints, we avoided the typical details that make a building look temporary. Instead, we wanted to develop a tectonic quality." Inside, columns give way to ■ poured-in-place concrete substructure of beams, floors, and walls.

Entering the lobby from the open terrace and the loggia edged by the colonnade, museumgoers find themselves in a large reception hall, where ipé, a dark Brazilian hardwood, clads much of the exterior and



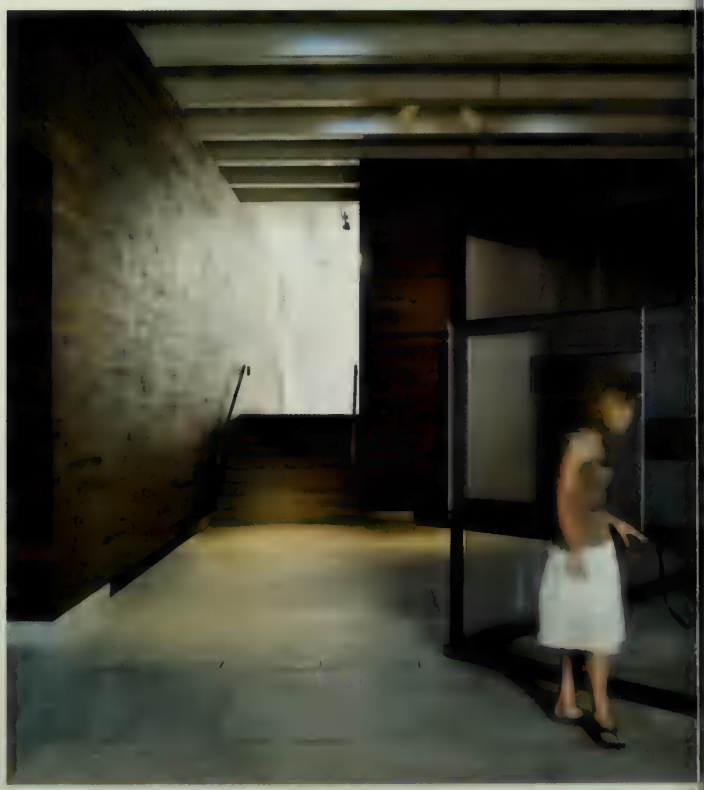


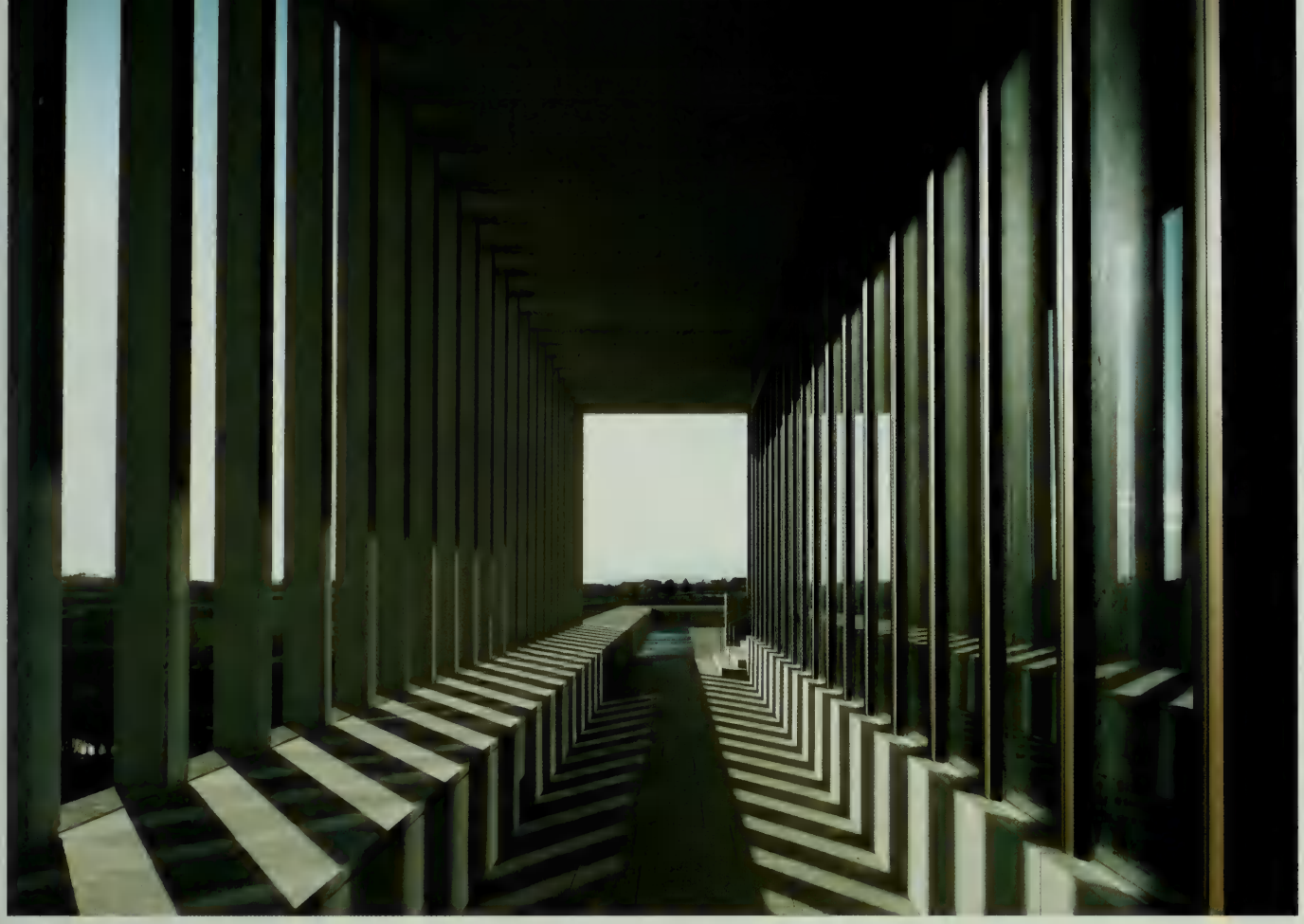
Once they have entered the museum at grade, visitors can see lower-level galleries (above right) opening onto a double-height atrium. Skylights between concrete beams illuminate the lower-level foyer (right).



Since the lower-level galleries had to be kept dark (50 lux) to protect the 20th- and 21st-century books and manuscripts on display from daylight, Chipperfield lined the walls with a dark ipé wood. A main gallery for the permanent collection (left) glitters with steel-and-glass vitrines illuminated by low-reflection, LED-strip-module fixtures. To keep the lower-level spaces from being too tomblike, Chipperfield designed the galleries with varied ceiling heights and placed them next to naturally lighted areas (below two). Light refracts off the limestone floors, as well.







The repetitive rhythm of the columns and mullions gives the loggias, such as this one facing south (above), a surreal, de Chirico-esque air. Beyond, the terrace overlooks the Neckar River.

interior walls. Daylight bathes the limestone floors and concrete walls in an ethereal glow on both levels. On the lower gallery level, skylights and clerestories introduce a softly eery light into the public spaces. Since the six galleries, both for permanent collections and temporary exhibitions, had to be dimly lit, Chipperfield designed these windowless spaces to adjoin a space that is either a glazed loggia or illuminated by skylights to diminish the sense of having descended into a tomb. The galleries themselves, with the dark ipé-paneled walls and concrete-beamed ceilings, vary in height. "We wanted these galleries to be dark in a positive way—not just dark boxes, but rooms with architectural integrity," Chipperfield explains. To that end, exhibition design firm Element, of Basel, created glass-and-steel vitrines for the exhibited books, and manuscripts glitter with low-reflection, LED-strip-module lighting fixtures.

"WE'RE BRINGING BACK A CLASSICISM THAT HASN'T BEEN SEEN IN THIS PART OF GERMANY SINCE THE WAR," SAYS CHIPPERFIELD.

The combination of Classical elements, such as the colonnades, loggias, podium, and siting, plus Modernist use of materials, with minimal detailing, results in a scheme that is so stripped to essentials it makes Mies's Modernist dictum to create "*beinahe nicht*" (almost nothing) seem like a clarion call for Dorothy Draper's decorative approach. Nevertheless, a resemblance to Albert Spear's type of rigid (if more vastly monumental) Classicism for Hitler did generate discussion with the clients, Chipperfield says. "We were bringing back a sort of Classicism that hasn't been seen in this part of Germany since the war," he adds. "But the period was far enough away that the discussion was interesting; Germans are willing to analyze what things mean. It's a great climate to work in."

Obviously, a certain irony underlies this sort of accomplishment, with its cultural and architectural reverberations. Nevertheless, as any number of instances around the world indicate, the global age defies a narrow sense of political history and boundaries.

In the same way that Chipperfield's architectural endeavors in America's heartland—with the Figge Museum of Art in Davenport, Iowa [RECORD, November 2005, page 116]; the newly completed Des Moines Public Library; and the projected St. Louis Art Museum expansion and master plan—demonstrate, sometimes an *auslander* can both build on and transform local traditions. In this case, the new building has been executed with a refreshing quality that reflects, while it contributes to, its place in history. ■

Sources

Concrete: *X. Buchenrieder GmbH*

Steel and metal structure: *Beck GmbH*

Wood and glass facades: *Vereinigte Holzbaubetriebe GmbH*

Cabinetwork and custom work: *Friedrich Hanselmann KG Mobel und Innenausbau*

Limestone floor paving: *Estrich Benirschke*

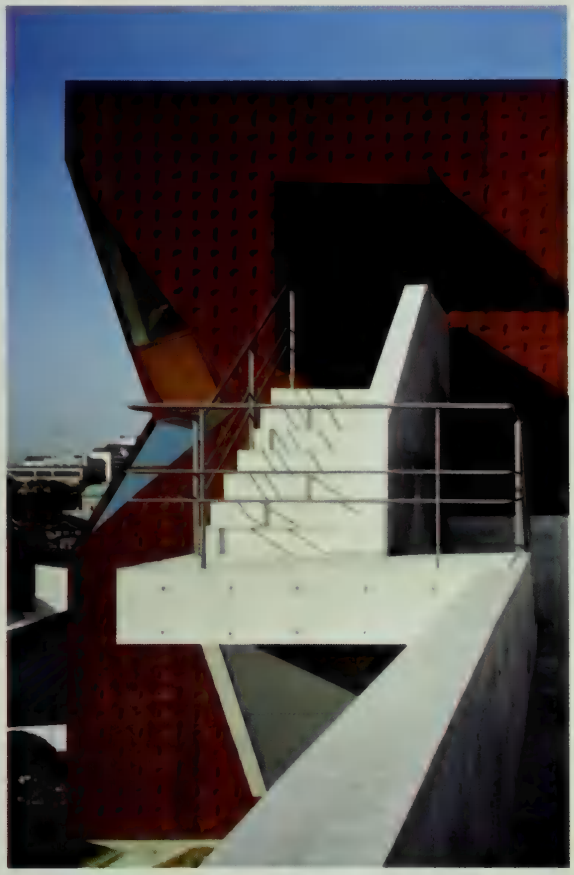
For more information on this project, go to Projects at **archrecord.construction.com**



Abe tailored triangular and slash windows (this page) to illuminate specific galleries. His idea was to retain the cubic form's integrity and bring in daylight, but without distracting views out. The main entrance is at the top level (opposite).

Hitoshi **Abe** forges a box of dimpled Cor-Ten steel, painted white on the inside, as a home for the new **KANNO MUSEUM** in Japan

By Naomi R. Pollock, AIA



A stark metal box for metal sculptures, the Kanno Museum of Art (also known as the Shiogama Sculpture Museum [SSM], after the surrounding town) contrasts markedly with the expressive curvy structures that first thrust architect Hitoshi Abe into the limelight. This latest work, a Cor-Ten cube, dimpled with a pattern reminiscent of diamond plate, contains a cluster of small galleries, inspired by soap bubbles but made of flat planes of steel. The brainchild of an art-loving, 70-something psychiatrist eager to share her collection, the 2,370-square-foot museum features eight modestly scaled figural works by such Western artists as Auguste Rodin and Henry Moore, plus temporary exhibitions. Adjacent to the doctor's palatial 30-year-old, masonry home in the Sendai suburb of Shiogama, Japan, Abe's sculptural building—residential in scale only—bears no resemblance to this or any other house nearby.

Single-family homes, small apartment buildings, and sporadic rice paddies border the narrow, circuitous road leading to the hillside site of the Kanno Museum. Perched on a grassy plateau and adjacent to an existing retaining wall, Abe's rust-colored building rises from concrete foundations. With its ground level below the road, the cube stands apart from its densely built immediate surroundings. Yet the approach to this object building proceeds effortlessly from the street, across the museum's small, cast-concrete parking area, and up a series of steps into the boxy volume. The main entrance, marked by an L-shaped Cor-Ten canopy, brings visitors directly into the museum's top level.

Leaving behind the mundane streetscape, the front door opens onto a reception area—the entrée into a magically white world, textured exactly like the exterior. Here, floors become walls, walls become ceilings, and art becomes the focus. Steel stairs descend immediately to an exhibition space, the first of a spiraling sequence of irregularly shaped galleries on three levels, all contained within the building's rectilinear enclosure. With slashed doorways and white, angled walls defining the three display spaces, the journey culminates on the building's lowest level, with the largest gallery, a room intended for small concerts and art installations. From there, an elevator back up to the top completes the circulation loop, depositing passengers in a small vestibule, where glass floor panels allow glimpses of the galleries below. But what really draws the eye is a triangular window across the adjacent reception room, opening toward ocean views—one of the few points of contact between the otherworldly interior and the real-world exterior.

Unlike commonplace buildings, so often stacked in domino fashion along grid coordinates, the Kanno Museum has its own unique, internal order. "I am more interested in space created by the relationship between people or objects than some kind of absolute system," says Abe. He considered imposing mathematical constructs or other ordering systems on the interior, but ultimately trusted his instincts and turned to soap bubbles.

Soap bubbles—dependent on and defined by each other—provided the perfect conceptual model for his galleries (though the architect was by no means literal, giving them faceted instead of curved forms). Intent on fostering an intimate relationship between the eight sculptures and the display spaces, Abe began by drawing a continuous, cellular enclosure, without discernable horizontal or vertical planes, around each

Naomi R. Pollock is RECORD*'s Tokyo-based correspondent.*

Project: *SSM/Kanno Museum of Art, Shiogama, Miyagi, Japan*
Architect: *Atelier Hitoshi Abe—Hitoshi Abe, principal*
Engineers: *Oak Structural Design; Sogo Consultants*
General contractor: *Kajima Corporation—Takahashi Kogyo*

artwork. At that stage, he observes, "We essentially designed boundaries between the sculptures."

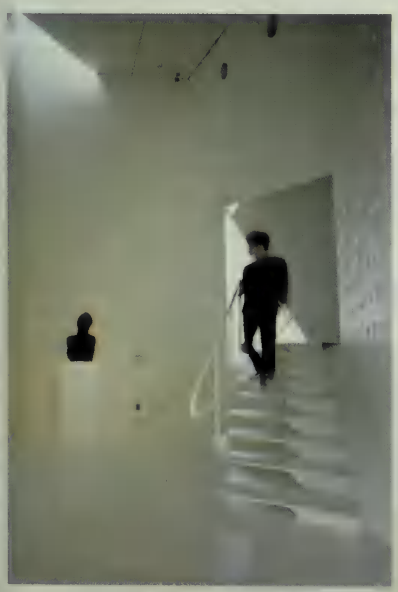
Abe clustered the "bubbles" by piling them into a cube that took its dimensions simply from the site's maximum permissible building envelope. Confining the bubbles not only established adjacencies, but also secured the architect's fragile and, until then, unstable organizational system. As the design progressed, some barriers broke down, with the original one-to-one correlation between sculpture and space morphing into a more flexible arrangement, capable of accommodating temporary exhibitions or presenting the permanent collection in multiple ways.

The analogy between steel plates and ephemeral soap bubbles may not be instantly obvious, but both can provide structure and enclosure simultaneously. Yet finding the ideal way to use steel here required, as the expression goes, thinking outside the box. "Nowadays people don't want to take the time to invent," laments Abe. But it took his team, including a structural engineer and the shipbuilder who had crafted the perforated-steel sheets for his Aoba-tei restaurant [RECORD, September 2005, page 132],

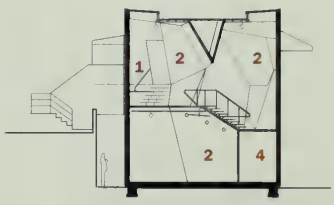


Stairs ascend from a small parking area to the main entrance, where an L-shaped canopy marks the front door (right). Faceted wall planes, evocatively lit by slash windows, create a highly sculptural interior (above).

The museum's boxy, dimpled Cor-Ten form contrasts with the residential neighborhood (this view). The exterior's curious apertures, including skylights angled into the walls, generate a subtle play of light and dark for the sculptures on display (below left).



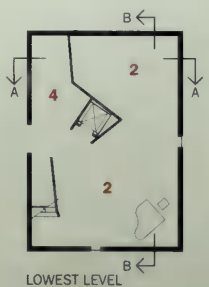
1. *Entrance*
2. *Gallery*
3. *Kitchen*
4. *Storage*



SECTION A-A



SECTION B-B



LOWEST LEVEL



MIDDLE LEVEL



TOP/ENTRY LEVEL



a mere 15 minutes to devise the museum's unique waffle walls.

Both inside and out, each wall is composed of two steel plates, covered by a grid of 6-by-3-inch, lozenge-shaped indentations, placed back-to-back. With the plates welded together at the embossments, each wall forms a double-sided barrier with air pockets to reduce condensation in between. A velvety rust that will eventually turn a rich, chocolate-brown coats the exterior walls. On the interior, some walls have a matte-paint finish that shows off the dimpled texture, while others carry a layer of wallboard for hung artwork. Abe unified the space and offset the sculptures by painting every interior surface white, even the floors and ceilings, most of which are of corrugated steel, sandwiched between flat plates.

Since the architect was able to work directly with the fabricator, building almost entirely with steel simplified many aspects of the construction process, improved quality control, and reduced costs. Yet this method also presented its challenges. Because of the narrow roads and limited capacity of the transport trucks, the steel had to be transported as small panels and then welded on-site. But getting all the pieces to fit together perfectly tested even the skilled shipbuilders who prefabricated and then assembled the components.

The task of fitting out the steel shell and transforming it into an actual building went to the general contractor, who was responsible for everything from the concrete foundations to interior finishes and window installations. Abe intended the exterior openings to bring in ambient light without impairing the cube's integrity or revealing, from the inside, too much of the museum's surroundings. The windows include a triangular skylight, angled into the side of the building, that illuminates the ground level; slash-shaped glass insets that span various levels; and in the staff office, operable strip windows. Adjustable track fixtures highlight the displays, while linear lighting elements, mounted where gallery walls meet, reveal the underlying cellular structure.

Though pioneered for the display of a select group of sculptures, the Kanno Museum's seemingly organic rules of organization are full of growth potential. "When you design, you have to define," maintains Abe. "But it would be boring if that definition came from limitations—I'd rather design for 'possibility.'" ■

Sources

Cor-Ten panels: *Kajima Corporation*
Lighting: *Toshiba; Yamagiwa; Matsushita Denko*
Elevator: *Mitsubishi Hitachi*
Plumbing fixtures: *Inax; Fuji Design; Toto; Cera*

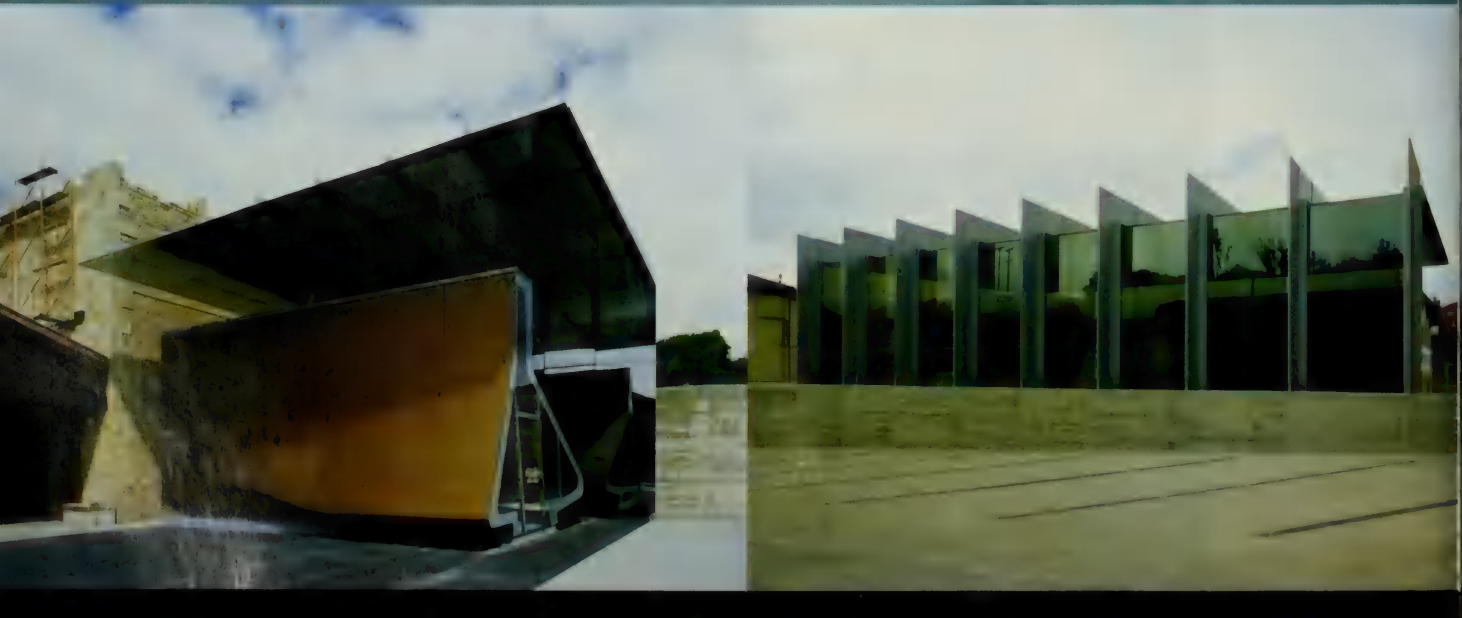
For more information on this project, go to Projects at **www.archrecord.com**.



Though the permanent collection's eight sculptures are relatively small in scale, the introspective, all-white interior—with its faceted, textured walls against idiosyncratic windows and skylights—showcases the artwork to dramatic effect (this page and opposite).



The fluidly shaped wine shop is sheltered by a glass-and-steel canopy (right and below two), which cantilevers over the fiberglass-reinforced polyester-and-resin shell.



Zaha Hadid creates a jewel-like pavilion sheltered by a canopy for a WINE SHOP AND TASTING ROOM at the López de Heredia Winery in Spain

By David Cohn



The steel-finned canopy for the pavilion abuts a retaining wall and a parking area in the villagelike winery.

The wine-tasting pavilion designed by Zaha Hadid for the historic López de Heredia Winery in the Rioja region of Spain compresses complexity and depth into a diminutive structure. Built first as a display stand for a Barcelona food fair in 2002 and then reassembled at the winery, it is now nestled under a glass shading canopy suspended from large, L-shaped cantilevering steel beams on one side. The pavilion, like a series of nested Russian dolls, in turn shelters the winery's elaborately carved mahogany and oak display stand for the 1910 Brussels Worlds Fair. Seen another way, the pavilion is an alluring portal to the mysteries of the winery. The flask-shaped profile of its entry opens up like a funnel inside, as if burrowing into the hidden world of the sprawling complex of buildings behind it. Either way, Hadid's design, without being too trite or obvious, alludes to the complexities experienced in uncorking and savoring a bottle of aged Rioja wine.

It is surprising to find a caprice of contemporary architecture at one of La Rioja's oldest and most tradition-bound wineries. Situated among other wineries at the edge of the town of Haro in the northeast part of Spain near the Basque region, this family-run business, now in its fourth generation, sticks to the winemaking methods for fermentation and aging established by Rafael López de Heredia, who founded it in 1877. No stainless-steel vats or computer-run temperature controls can be found here.

But the new pavilion is more than just a fashionable marketing ploy. Hadid—whom the founder's great-granddaughter, María José López de Heredia, discovered in a 1995 monograph—created a structure that is simply another element of the winery's already iconoclastic campus. It joins Txori Toki (the Basque term for *birdhouse*), a colorful lookout tower that crowns the López residence, built around 1886, along with a vaguely Art Nouveau gallery-bridge of colored Belgian glass that joins the house to the office block, and countless other elements, including a 1910 American windmill. López also found a 1910 display pavilion disassembled and forgotten in one of the winery's storerooms. Too tall to fit in existing buildings, it became the motive for Hadid's project.

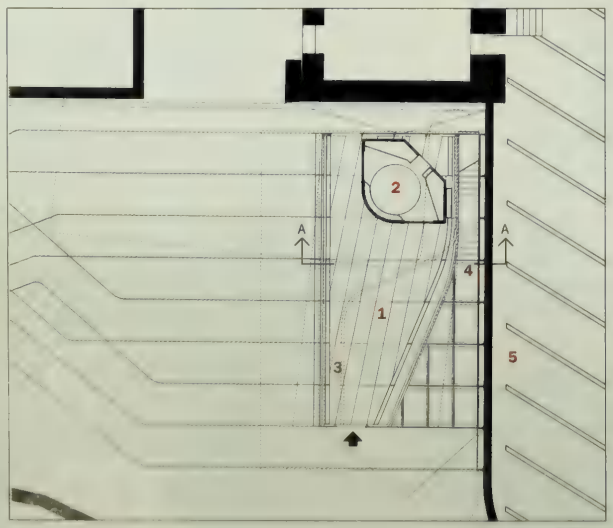
The architects developed the design through the gradual deformation of a rectangular space in section, moving from the back of the structure to the front, to end with what project architect Jim Heverin calls "a distorted memory shape resembling a decanter—which was not an intentional end point, but once noticed, could not be ignored." The billowing side walls provide space for ample banquettes inside, which are complemented by Verner Panton chairs and custom-designed tables for wine tasting. The sectional deformation is rhythmically marked by structural steel ribs, laser-cut to outline the changing profile. Each rib consists of doubled steel plates, which allowed the pavilion to be disassembled along the joints between them after the 2002 fair for transport from Barcelona to Haro.

The architects repeated the distorted form of the entry profile plan—a cool, three-dimensional trick that is most noticeable on the transparent glass ceiling, and in the plan's reflection at night on the suspended glass canopy. The pavilion's exterior side walls ripple: Finished

David Cohn, an international correspondent for RECORD, *is based in Madrid.*

Project: *R. López de Heredia Viña Tondonia, Haro, Rioja, Spain*
Architect: *Zaha Hadid Architects—Zaha Hadid, principal; Jim Heverin, project architect; Tiago Correia, Matthias Frei, Ana Cajiao, Raza Zahid, design team*
Local architect: *Arquitectura IOA—Candi Casadevall, project architect; Nuria Ayala, Xavier Medina, Joan Ramon Rius, project team*
Engineers: *Jane Wernick Associates (structural); Arup London (mechanical)*

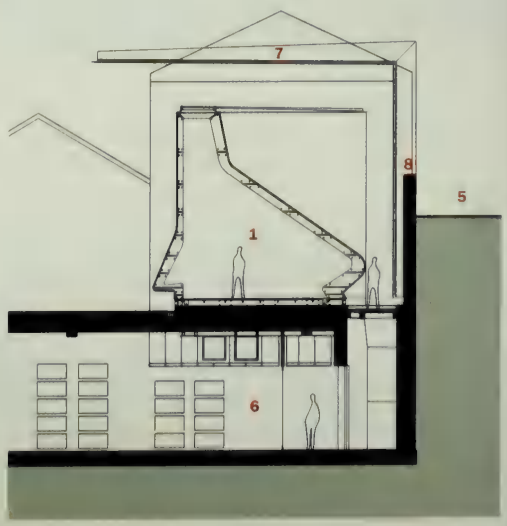
In the wine-tasting section of the pavilion, visitors enter via a tilted front door and sit at banquettes installed within the coffers of the steel-ribbed walls, or on Verner Panton chairs. A wine-tasting room is being built below grade, reached by an outdoor stair.



ENTRY FLOOR

0 3 FT.
1 M.

1. *Tasting area*
2. *1910 Booth*
3. *Banquettes*
4. *Outside stair*
5. *Upper-level road*
6. *Underground function room*
7. *Canopy*
8. *Retaining wall*



SECTION A-A



The interior of the wine shop and tasting room terminates in an Art Nouveau display booth carved of mahogany and oak for the 1910 Brussels World's Fair. Structural steel ribs of doubled steel plates along with steel panels are revealed inside the deformed-decanter-shaped pavilion.

like a boat, they were built with successive layers of foam insulation, fiberglass-reinforced polyester, coats of sanded epoxy resin, and polyurethane paint colored a burnished gold.

The architects also created a new visitors' entry and parking for the tasting room and shop. Paving of weaving metal lines and LED lights embedded in asphalt, like a miniature airport runway designed by a drunk, gives way to metal grilles on one side. These span the still-unfinished, below-grade wine-tasting room, which can be reached by an outdoor stair tucked between the pavilion and the retaining wall. A continuous, solid-surface seating, table, and wall unit is being fabricated now for the underground space. From this location, tours of the winery's maze of moldering cellars will begin.

Since 2004, when Hadid won the Pritzker Prize, López says she has been a bit overwhelmed by the crowds and media attention the wine shop is attracting. This is Hadid's second completed project in Spain, after she designed a floor of rooms at the Puerta de América Hotel in Madrid [RECORD, September 2005, page 96]. Six more buildings are on the way, including the Bridge Pavilion for Expo Zaragoza 2008, the EuskoTren railroad headquarters in Durango, and a competition-winning design for a university library in Seville. The family is also surprised by a few other side effects of contemporary architecture, such as the fact that the 8,500-square-foot structure, despite its state-of-the-art, energy-efficient mechanical equipment, has doubled energy bills at the 200,000-square-foot winery, a symptom of its belated passage out of the 19th century. But López insists that she has only followed hallowed family tradition in her quixotic architectural adventure. "I was attracted by [Hadid's] idea that architecture can only triumph before the public when we all have a sensibility for it," she maintains. No doubt, this modest little wine shop has made a big contribution to that process. ■

Sources

Steel canopy and floor plates: *URSS*

Floor (composite wood): *Composites Gurea (Parklex)*

Glass: *Glass XXI*

Furnishings for below-grade function room: *Dupont (Corian)*

Verner Panton chairs: *Vitra*

Lighting: *Agabekov; Sill Lighting; Nord Light*

For more information on this project, go to Projects at **archrecord.construction.com**.


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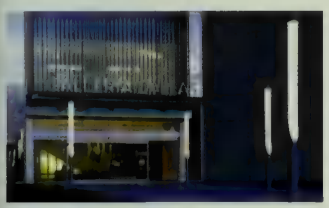
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Cultural Icons

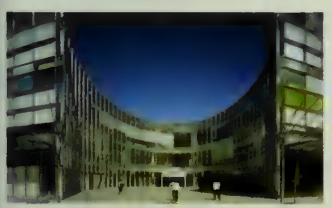
Having assumed many identities during the 20th century, from strip center to mega-mall to festival marketplace, the shopping center reflects the values of those who shop there.



TRIANGLE SHOPPING CENTRE
Manchester, England
The U.K. and Hong Kong–based firm Benoy creates a modern shopping center inside a 1903 corn exchange, making sure it spills onto the sidewalk and engages its urban neighbors.



GALLERIA DALLAS
Dallas, Texas
A major interior renovation by SMWM and new landscaping by Hargreaves Associates help revive the fortunes of a mall that had once been a regional trendsetter.



ABERDEEN CENTRE
Richmond, B.C., Canada
In a Vancouver suburb with a large Asian population, this retail-and-residential complex designed by Bing Thom Architects caters to its local customers as it applies lessons from a global market.

For more information on these projects, go to Building Types Study at **archrecord.construction.com**.

By Clifford A. Pearson

You are where you shop. Every teenager knows that. Whether we admit it or not, our choice of shopping venues says a great deal about who we are—providing important clues to our income, age, place of residence, lifestyle, and personal aspirations. So it's no wonder that shopping centers loom large in our emotional landscapes and have played prominent roles in movies like *Fast Times at Ridgemont High* and *Dawn of the Dead*. They are also cultural markers, identifying particular milestones on the road of modern development. Drive out to the American heartland—to Lake Forest, Illinois, for intstance, where you'll find Market Square, which began in 1916 and is now listed on The National Register of Historic Places as the first planned shopping district in the United States. Keep going and you'll hit Country Club Plaza in Kansas City, Missouri, which opened in 1922. It was developed by J.C. Nichols as an automobile-focused retail complex and was one of the first places to be called a "shopping center." In fact, you could chart the course of urban development in the 20th century by mapping the growth and changing character of shopping centers: the move to the suburbs, the supersizing of the mall, the rise of discount outlets, the festival marketplace's attempt to bring people back downtown, and the recent emergence of "lifestyle centers," which try to combine the DNA of both Main Street and the mall.

Once firmly identified with the United States, the shopping center has spread around the globe, embraced by billions as an icon of affluence. Beijing now boasts the world's largest, the Golden Resources Shopping Mall, which at 7.3 million square feet is 3.1 million square feet bigger than the Mall of America, in Bloomington, Minnesota, formerly the largest. In his article on the Aberdeen Centre outside of Vancouver, Trevor Boddy calls it "the first of the new, globalized shopping malls to be built [in North America]." What had been an American export is now being imported from abroad, complete with foreign flavors and appeal. Although set in the suburbs, the Aberdeen Centre—designed by Bing Thom Architects—engages its context with a pair of public outdoor spaces, includes a 120-unit condo tower, and will connect to a new rapid-transit line being built for the 2010 Winter Olympics. So this mall is planting urban genes in the body of a suburb. In Manchester, England, the Triangle Shopping Centre is also playing a transformative role, supporting the revival of the city's downtown in the aftermath of a 1996 terrorist bombing. At the Galleria in Dallas, the firm SMWM shows how architecture and $70 million can help an aging mall get its mojo back.

You are where you shop. And that applies to entire societies, as well as individuals. ■

ONE: TRIANGLE SHOPPING CENTRE
Manchester, England

Benoy takes a historic corn exchange building damaged by a terrorist bomb and turns it into a 21st-century shopping center.

By Clifford A. Pearson

Architect: *Benoy—David Coyne, executive director; Peter Challoner, senior architectural technician*
Client: *Milligan RRI*
Engineers: *Faber Maunsell (structural; mechanical/electrical); Midas Technologies (sky bar)*
Consultants: *Design Intervention (feature lighting); Mel Chantrey (sculptures)*
General contractor: *Dean and Bowes*

Size: *150,000 square feet*
Cost: *$7.8 million (entrance and refurbishment); $1.8 million (sky bar)*
Completion date: *March 2005*

Sources
Perforated stainless-steel sheets on sky bar: *Nova*
Plasterboard and metal-stud system: *British Gypsum*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.



On June 15, 1996, a bomb set by the Irish Republican Army ripped through the center of Manchester, England, injuring more than 200 people and causing extensive damage. During the following nine years, the government and private developers rebuilt the area, using a master plan designed by EDAW. One of the final pieces in this urban jigsaw puzzle was the renovation of the 1903 Corn Exchange Building, which had incurred only superficial damage from the bomb but had become a retailing anachronism. Originally a market-style trading hall, the corn exchange had evolved into an emporium of natural and "alternative" foods and "New Age" products by the 1980s.

Program

The property's owner, Milligan RRI, hired the large U.K. and Hong Kong–based design firm Benoy to convert the corn exchange into a modern shopping center, accommodating a new mix of tenants and a contemporary design for all the public spaces and graphics. The owner also wanted the complex, which it renamed the Triangle Shopping Centre, to better connect with its urban context, specifically Exchange Square to the south and Victoria Station to the north.

Solution

Because the Corn Exchange Building was landmarked, Benoy could make only minor changes to its exterior. The designers added new signage, including vertical banners and a large LED display screen, which would be programmed by the BBC to present cultural and sporting events. "The owner wanted the center to have a stronger presence on

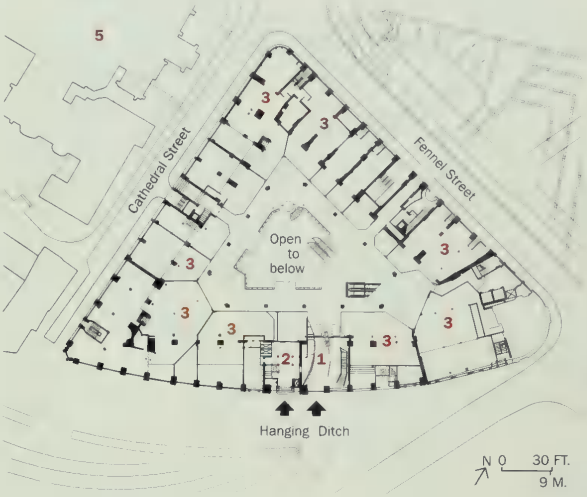


Sculptures by Mel Chantrey help announce new entries on the north (above) and the south, facing Exchange Square (top). Hovering on three legs, the sky bar acts as an icon for the center (opposite).


NERO
NERO
NERO



SECOND FLOOR



GROUND FLOOR



1. *Shopping center lobby*
2. *Office lobby*
3. *Retail*
4. *Sky bar*
5. *Cathedral*

The architects cleaned up the existing structure's glazed vaulting and domes (top right) and wove new materials, such as stainless steel and glass, into the historic building (right).





The sky bar was built in a factory, then reassembled inside the shopping center at night. It houses a coffee retailer, which has done a booming business at this location.

Exchange Square," says David Coyne, executive director of Benoy, "so we developed a design where the new interior would spill out onto the square." To do that, the architects inserted a modern, two-story-high entrance where a store had been, and converted the old, stepped entryway into the main access point for offices that sit above the three floors of shopping space. Then they added another new entrance on the north, creating a strong circulation route from Victoria Station through the mall and out to Exchange Square. To emphasize this axis and alert people that something new was going on inside the old building, the architects worked with artist Mel Chantrey to create sculptures at the new entrances that use the same materials—steel and perforated metal—as those in the revamped shopping center.

Inside the building, Benoy reworked the floor plates and circulation to create a tri-level shopping center with 150,000 square feet that takes full advantage of the old building's glazed vaulting. As a "jewel in the crown," the architects designed a podlike "sky bar" that rests on three legs and has the look of a lunar landing vehicle. In fact, the sky bar did land from elsewhere, having been built in a factory, then reassembled over an eight-week period inside the mall at night when the shops were closed. "We needed to create a visual icon, but one that wouldn't overwhelm everything else," says Coyne of the sky bar.

Commentary

Although the new BBC display screen and some of the graphic elements on the exterior of the building seem to be more tacked on than integrated with the historic envelope, the Triangle Shopping Centre has a stronger relationship with its urban neighbors than its predecessor did. Pedestrians now flow through and around the building and hang out at the rebuilt Exchange Square (designed by landscape architect Martha Schwartz). Inside, the shopping center copies many of the slick moves—glass balustrades, stainless-steel trim, and polished-stone floors—found in malls all over the world. But the new elements enliven the old architecture, and the sky bar provides just the right kind of wow to make this mall more fun than most others. ■

TWO: GALLERIA DALLAS
Dallas, Texas

SMWM and Omniplan renovate an aging diva of a mall, using contemporary materials and light-filled spaces to give her renewed life.

By David Dillon

Architect: *SMWM—Cathy Simon, FAIA, design principal; David Bacon, Alice Beneicke, Jennifer Brodie, Dan Cheetham, AIA, Jackie Lange, AIA, Lamberto Moris, FAIA, Dean Nakabayashi, Gregg Novicoff, AIA, Matthew Peak, Tiffany Scharpf, Kat Sheldon, Pietro Silva, Eric Staten, Amanda Williams, design team*
Architect of record: *Omniplan*
Client: *UBS Asset Management*
Engineers: *Thornton-Tomasetti (structural); Arjo (mechanical)*
Consultants: *Hargreaves Associates (landscape); T. Kondos Associates (lighting)*
Construction manager: *Wolf Group*
General contractor: *VCC*

Size: *250,000 gross square feet*
Cost: *$35 million (interiors); $70 million (including landscaping, design, graphics, and furniture)*
Completion date: *November 2005*

Sources
Paint: *Benjamin Moore*
Laminates/veneers: *Briggs Veneers; General Woods & Veneers*
Flooring: *ASN Natural Stone*
Carpet: *Milliken*
Lighting fixtures: *Modular; Kurt Versen; Prudential; Linear Lighting; LSI; ETC; Winona; Pablo Pardo*
Railing: *South West Metalsmiths*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.

The Dallas Galleria opened in 1982 at the conjunction of a tollway and an interstate, a textbook definition of a 100 percent location. For 20 years it was a money machine for developer Gerald Hines—an instant satellite city containing a hotel, office towers, movie theaters, and a glass-vaulted shopping mall with a skating rink, food court, jogging track, and other trendy amenities. It was more coherent and architecturally sophisticated than its Houston prototype, which Hines opened in 1970. (Both malls were inspired by the 19th-century Galleria in Milan, Italy.) It also happened to be the luxury mall closest to Dallas's affluent northern suburbs.

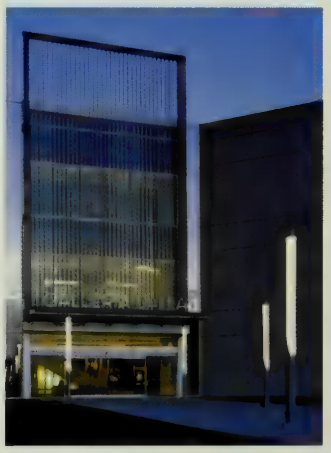
But with the emergence of new retail concepts such as power centers and lifestyle centers, and major upgrades to competing malls, including the premiere NorthPark Center, the Galleria lost its cachet. Sales slumped, name retailers left, and the entire project suddenly looked passé. USB Realty eventually bought it from Hines, in 2002, and embarked on a $70 million renovation to get it back in the regional retail game.

Program

"When we compared it to newer malls in Dallas, it looked so tired," recalls Cathy Simon of SMWM, who collaborated with Hargreaves Associates and Omniplan of Dallas on the turnaround. "It had old ficus trees, lots of boring pink and brown granite, and no sense of place."

Tired doesn't begin to describe the situation. Circulation was poor, the mix of stores perplexing (boutiques and kids' stores side by side), and there were no public spaces where shoppers could take a break from nonstop consumption. Current research shows that more shoppers go to a mall to browse and watch the passing parade than to visit a specific store or make a specific purchase. But the Galleria had no idling places except those around the ice rink—a signature feature carried over from Houston—and even they had dark spots and dead ends.

"We were aware of what was going on at NorthPark and elsewhere," says Omniplan's Tipton Housewright, "and felt that in order to attract high-end tenants, we needed to create an indoor version of Rodeo Drive."





Solution

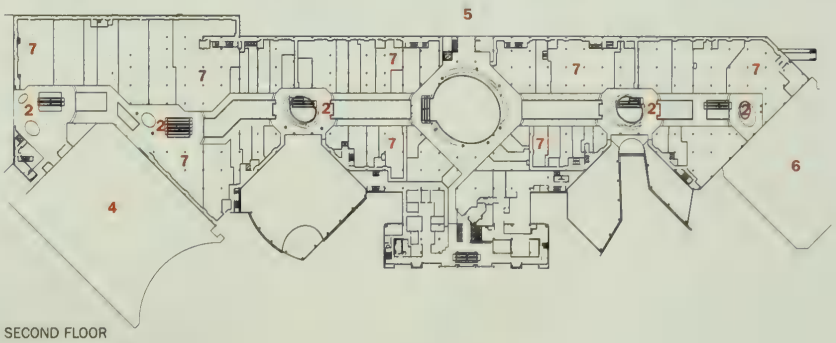
The architects' first big move was to

Contributing editor David Dillon divides his time between Dallas and Amherst, Mass.

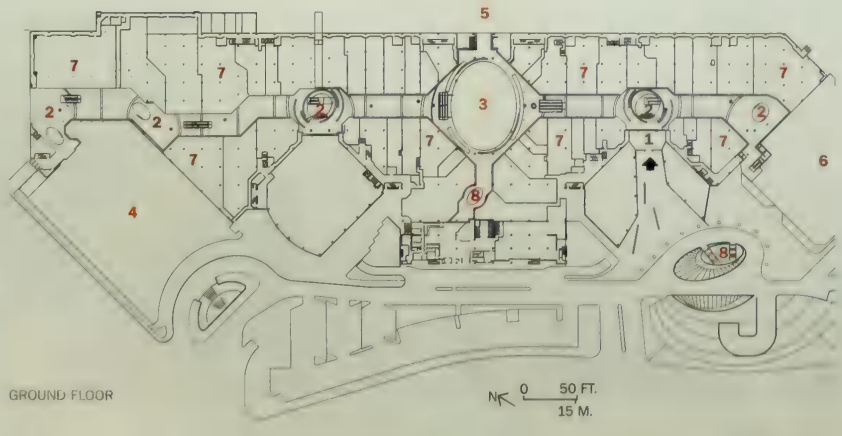


The architects created a new main entrance for the mall (opposite, top) and renovated 250,000 gross square feet inside the complex. In the 20 years after it opened in 1982 and before it was renovated, the mall had gotten worn and tired (opposite, bottom). The revived interior (right) features new finishes, a scissors escalator, and palm trees suspended at the third floor.





SECOND FLOOR



GROUND FLOOR

1. *Main entry foyer*
2. *Activity node*
3. *Skating rink*
4. *Saks Fifth Avenue*
5. *Macy's*
6. *Banana Republic*
7. *Retail*
8. *Fountain*

The new scissors escalator helps circulation in the three-level mall, while a reconfigured skating rink offers more space for people to gather (above).

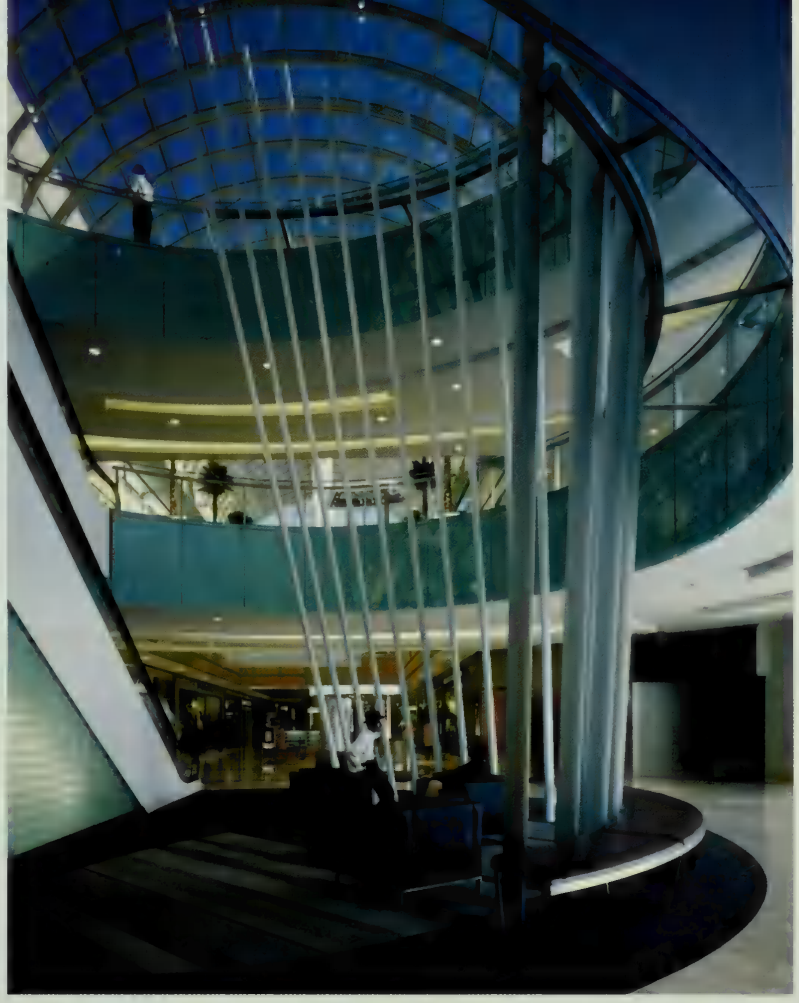
convert the ground floor into an urban street by removing the ficus trees and planters, adding limestone paving and contemporary lighting, and creating small plazas with benches and sculpture at key points along the mall's 960-foot-long spine. The effect was to turn a nondescript concourse into a chic shopping promenade featuring upscale retailers. Mid-price stores moved to the second level, and family stores to the third.

To improve vertical circulation, a tough issue in three-level malls, the architects added a sleek scissor escalator at center court, next to the ice rink, which they made smaller and more elliptical to improve flow around it. They made other key nodes more elliptical as well, and refaced balconies and walkways in green glass and Australian eucalyptus to create a richer and more fluid design.

The Galleria's monumental glass vaults, static and diagrammatic versions of Milan's stunning original, presented another problem. To cope with it, Hargreaves suspended embalmed palm trees—as in "real but dead"—from planters on the third level, where they become vertical sculptures that help tie the vast space together while serving as ironic metaphors for the trees that were removed below. Curved and folded-fabric sculptures by French artist Daniel Graffin float overhead, celebrating the light filtering through the vaults. Several of these pieces hang above a new children's play area, another of the attractions designed to keep parents and kids shopping till they drop.

Commentary

The Dallas Galleria renovation is more cosmetic than structural. The basic building section remains unchanged, but the new materials, lighting, and public amenities add up to a more urbane and sophisticated shopping experience. It is still a mall, but one no longer teetering on the brink. Sales have improved, new tenants have arrived, and the overall atmosphere is more inviting. If the Galleria has been reconfigured rather than reinvented, it is no longer stuck in a time warp. ■





The architects turned the ground floor into an indoor street with a series of "activity nodes" that allow shoppers to take a break and relax (above). Throughout the mall, new furniture, contemporary lighting, and elegant materials have given the complex new life (right).

THREE: ABERDEEN CENTRE
Richmond, British Columbia, Canada

Bing Thom Architects designs a mixed-use complex that is helping a suburb become more of an urban kind of place.

By Trevor Boddy

Architect: *Bing Thom Architects—Bing Thom, Luciano Zago, Allan Alomes, Brian Billingsley, Eric Boelling, John Camfield, Yi Mei Chan, Chris Doray, Stephanie Forsythe, Michael Heeney, Shinobu Homma, Marcos Hui, Stanton Hung, Eileen Keenan, Arno Matis, Michael Motlagh, Robert Sandilands, Michael Wong, Tony Yip, Francis Yan*
Owner: *Fairchild Developments*
Engineers: *Bush, Bohlman (structural); Keen (mechanical); RA Duff (electrical); MPT (civil)*
Consultants: *Fred Liu (landscape); Illuminating Concepts (lighting)*
Construction manager: *Dominion Construction*

Size: *400,000 square feet (retail); 300,000 square feet (parking)*
Cost: *$62 million*
Completion date: *February 2004*

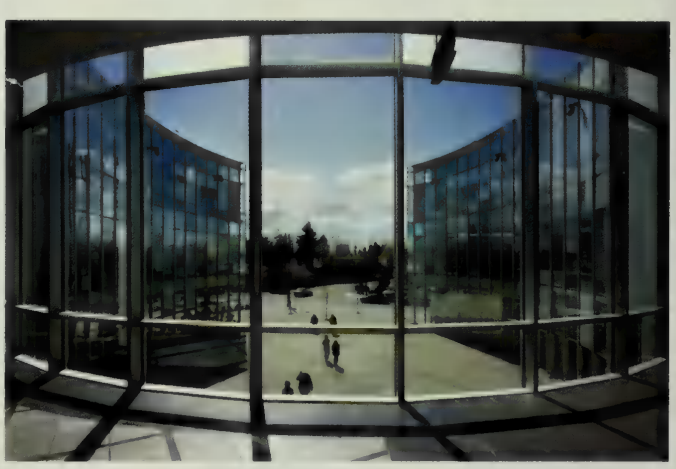
Sources
Glass and skylights: *Advanced Glazing Systems*
Curtain wall: *Vanceva Glazing Loadings*
Floor and wall tile: *Savoia Canada*
Paints and stains: *Zolatone*

For more information on this project, go to Building Types Study at archrecord.construction.com.

As many of us learned from studying the works of Aldo Rossi, never count a building typology dead. I remember being thrilled by Rossi and Carlo Aymonino's massive Gallaratese housing project outside Milan when it opened in 1974 for its updating of Trajan's market in Rome and the continuous arcades found in Italy's Veneto. With the rise of big-box stores and so-called power centers, and the drift of chain stores back to urban streets, there has been speculation in North America that shopping malls are a dying breed. But simultaneously, the rest of the world has shown increasing zest for malls, with the most impressive examples now found in South America, the Middle East, and East Asia.

Bing Thom's Aberdeen Centre for Vancouver's heavily Asian suburb of Richmond is the first of the new, globalized shopping malls to be built on this continent. It is a truly 21st-century reinvigoration of the type, with a layout that ignores the tired bipolar model that places the supermarket at one end, the anchor department store at the other, and double-loaded rows of shops in-between. With its smartly detailed, colored-glass walls, the sinuous Aberdeen Centre breaks all the conventions of shopping-mall design: It has an innovative layout, an unconventional leasing strategy, shopping

Trevor Boddy is a Vancouver-based critic and urbanist.



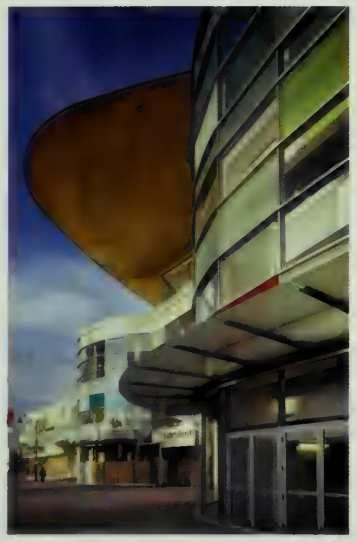
floors that are vertically stacked with multilevel parking to one side, a 120-unit condo tower right over the mall, and a net-to-gross ratio that's low due to all the space devoted to public amenities. The design may also point to something many cities talk about these days, but few have accomplished: the urbanization and densification of postwar suburbs.

Program

Aberdeen represents the vision of its owner, Hong Kong–born media entrepreneur Thomas Fung. Educated at the University of British Columbia and N.Y.U., Fung produced and wrote a number of Chinese-language kung-fu and comedy movies, then settled in Vancouver to manage his otherwise Hong Kong–based family's real estate and media empire, including Fairchild Group, North America's largest Chinese-language TV, radio, and Internet operation.

Built in the early 1980s, the original Fung-owned Aberdeen Mall was underperforming economically two decades later and had become difficult to manage (its movie theater and arcade attracted local gangs). To revive the property, Fung engaged a fellow Hong Konger-gone-Canadian, Bing Thom, who had emerged from the shadow of his former employer, Arthur Erickson, to become Vancouver's most progressive city builder. Seeking a wider customer base for the mall, Fung took Thom's radical advice to demolish the existing shopping center and build a new, 562,000-square-foot retail-residential-entertainment complex on its site, renamed Aberdeen Centre in English. Aberdeen refers to Richmond's equivalent in Hong Kong—an upscale suburb. But the

The architects worked with Molo Design to develop a color palette for the building's curtain wall (right two and below). Colored-glass panels come in opaque, translucent, and transparent versions and can be changed over time. A deeply recessed courtyard (far right and opposite) provides access to produce stalls and restaurants.







mall's more important and all-new Chinese name doesn't refer to location at all; its ideograms translate as "Timely" and "Trendy Place."

Solution

As the project moved through design and construction, Fung rethought the mall's retail mix. He renewed none of his former retail tenants, instead lining up leading-edge Asian retailers, such as Thailand's answer to IKEA and one of Korea's leading clothing stores. Then he secured the North American master franchise for Daiso, the Japanese equivalent of Wal-Mart.

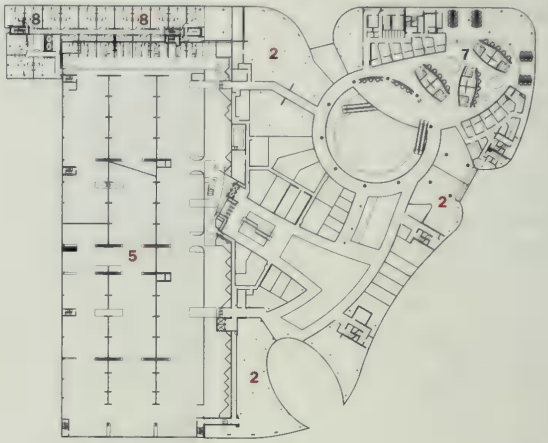
Thom's curvilinear design responds to siting considerations, such as a realigned public street on the east side of the property that traces a large arc accommodating the mall's enlarged footprint. With a new rail line set to open for Vancouver's 2010 Winter Olympic Games and a transit station planned just north of the site, Thom placed condominium apartments closest to the rail connection. While cars pull into a garage on the west side of the complex, pedestrians can enter from the north, east, and southeast.

Inside the mall, Thom arranged stores mostly along single-loaded pathways, creating a more open and spacious environment for shoppers. The curving circulation routes also improve sight lines so storefronts are easy to find. Daylight is an obsession in Thom's design:

1. *Fountain court*
2. *Retail*
3. *Food market*
4. *Courtyard*
5. *Parking*
6. *Residential lobby*
7. *Food court*
8. *Apartment*



GROUND FLOOR



THIRD FLOOR



Curving pathways and generous public spaces create an open, light-filled setting for the mall's retail outlets.

Retail floor trays step back in section to deepen penetration, while 20 light cannons inspired by Corbu's La Tourette brighten the generous public spaces without hitting storefronts with direct sunlight.

The architect's use of colored glass for the project's curtain wall establishes a strong visual identity for the building. Thom worked with Stephanie Forsythe of Molo Design to distill a palette of colors that picks up hues from the mainly Asian strip malls in the area. Using full-scale mock-ups of the curtain wall, Thom's team developed a range of opaque, transparent, and translucent panels for each color, so that exterior walls can be periodically modified to meet the changing needs of the retailers behind them. The random checkerboard patterning of the panels makes future changes less apparent. The architects designed window mullion caps so their bull-nose profile curves inward and can be fastened on the back, allowing flat-plate glass to be used even for tight curves. Project architect Luciano Zago says, "The benefit of this detail is the perception of curving surfaces but the economics of faceted glass."

Because both owner and designer were committed to increasing Richmond's public space, Thom created a pair of public outdoor plazas—a deeply recessed market court ringed by produce stalls and restaurants near the west end of the main elevation, and a smaller piazzeta under a giant, disklike roof shielding the main entrance to the complex. The disk's clear span, which stretches nearly a city block, caps the central atrium (Richmond's largest interior space) and is heavily programmed with entertainment functions. The disk's continuously curved plaster soffit serves as both a clerestory reflecting surface and a screen on which images can be projected. Look up there and you'll find animated views of clouds and stars—both the astronomical variety and the kings of Canto-Pop.

Commentary

A show-biz client and a know-biz architect combined strengths at Aberdeen Centre to create a mall that poses an elegant counter-argument to the shopworn clichés and bottom-line formulas that almost killed this building type. With single-family bungalows from the 1960s across the street, Aberdeen Centre engages the landscape of suburbia while enlivening it with a sensitively scaled but densely packed program of uses. The light-rail line now under construction next door will link Aberdeen to Vancouver's airport and downtown. And with a speed-skating oval for the 2010 Olympics rising just a few blocks away, Aberdeen may prove the germ to a retail, entertainment, and residential hub that could render this suburb a lot more urban.



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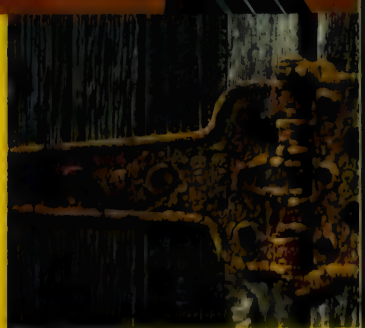
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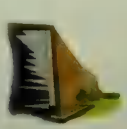
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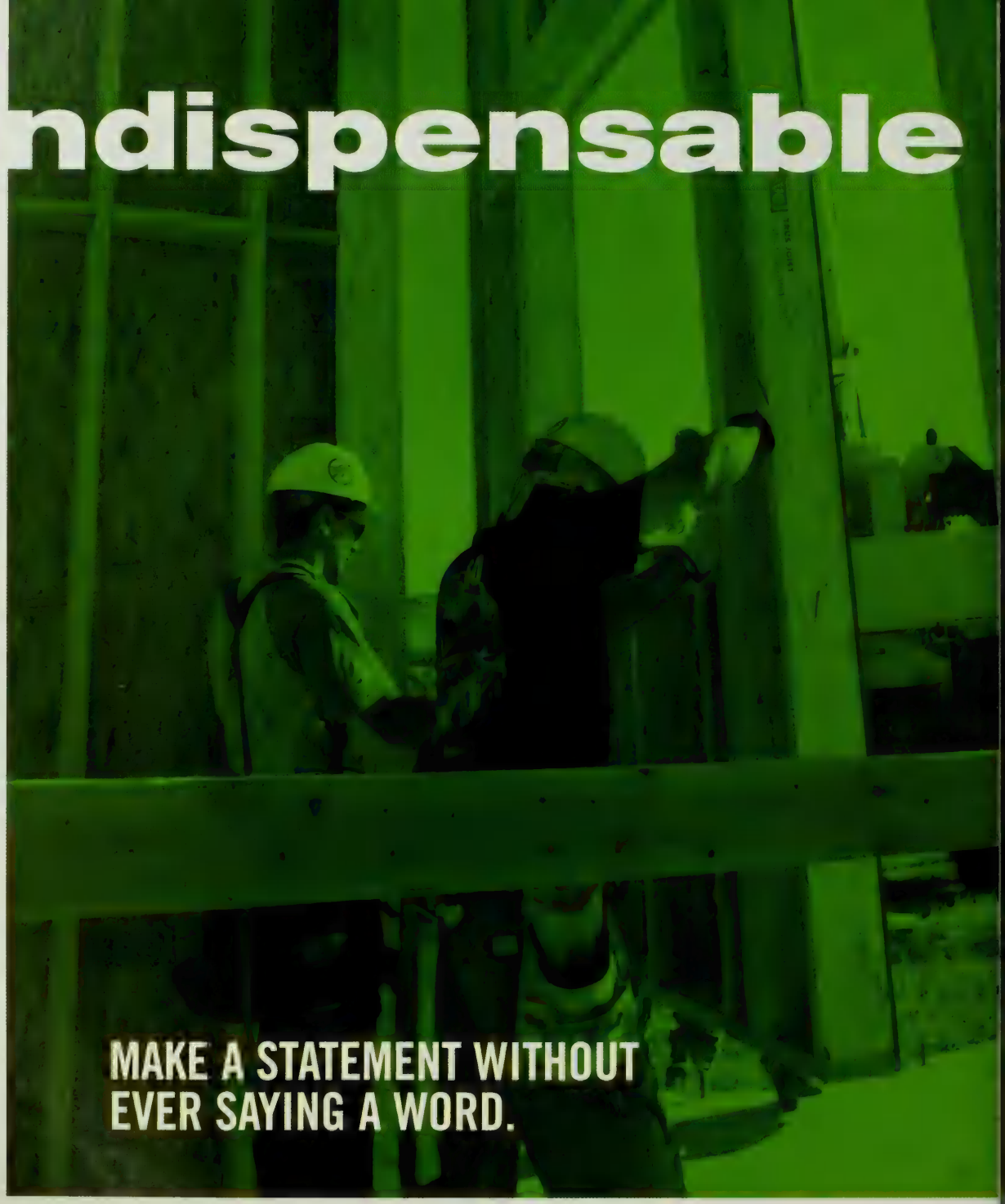


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DESIGNERS EXPLOIT THE EXPRESSIVE POSSIBILITIES OF A SYSTEM THAT SEPARATES A BUILDING'S CLADDING FROM ITS WEATHER-RESISTANT BARRIER AND HELPS COMBAT WATER PENETRATION WOES

By Joann Gonchar, AIA





A channel-glass cavity wall illuminated from within helps Boston's Institute of Contemporary Art glow at night but shields gallery space from the sun.

Water is a necessity of life. But in buildings, mismanaged water allowed to penetrate exterior walls is a pernicious problem for architects, occupants, and owners. It can wreak havoc on finishes and structural components, and adversely impact a building's market value.

The conditions that cause infiltration are straightforward. "For a leak to occur, you need water, a hole, and a force to drive it through," says Neil McClelland, Arup associate principal. But finding the exact source of water problems and correcting them after occupancy is not so clear-cut, and often disruptive and expensive. It is more effective to prevent water from penetrating facades during design and construction, and one strategy for doing so is a rain screen.

In the broadest sense, a rain screen is cladding divorced by means of a flashed and drained cavity from a building's weather-resistant barrier, says Tom Schwartz, president of engineering firm Simpson Gumpertz & Heger (SGH). According to this definition, the typical masonry cavity wall can be classified as a rain screen. In such a wall, the continuous air space between inner and outer wythes helps control some of the forces that drive water into the interiors of buildings, such as gravity, capillary action, surface tension, and momentum.

However, rain screens need not be made of masonry. The cladding can be made from almost anything as long as it is durable, including metal, timber, glass, or even some fabrics, says McClelland. Similarly, for the weather-resistant backup wall, a variety of materials are suitable, such as metal stud-wall construction, masonry, or concrete.

CONTINUING EDUCATION

Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/ *AIA Continuing Education article. To receive credit, turn to page 146 and follow the instructions.*

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. *Explain what a rain screen is.*
2. *Describe how a rain screen works.*
3. *Discuss various rain-screen designs.*

For this story and more continuing education, as well as links to sources, white papers, and products, go to **archrecord.construction.com**.

Bold beacon

Many architects have capitalized on the freedom that the separation of the cladding and weather-resistant barrier allows by reinterpreting cavity-wall construction. One recent example is the Diller Scofidio + Renfro–designed Institute of Contemporary Art, in Boston, which opened in December. A channel-glass-clad cavity wall encloses three sides of the upper level of the 65,000-square-foot, two-story waterfront building. This wall assembly, which includes a standard metal stud wall that acts as the true thermal and weather-resistant barrier, protects the art from natural light but allows the building to serve as a beacon at night, says Gregory Burchard, project manager for Perry Dean Rogers Partners, the executive architect.

The 11-inch-wide pieces of channel glass are butted together and sealed at the flanges along their 14-foot lengths, except for an approximately 12-inch venting gap left at the bottom of each. At the base of the glass, a drainage slot allows the wall to weep. Between the stud wall and





As part of a $4 million renovation of a 1980s-era office building in Denver, the architect replaced an original glass curtain wall and expanded metal facade (top left) that had earned the building the nickname "the cheese grater." The new cladding (left), an open-jointed terra-cotta rain-screen system, appealed to the client because it affords the warmth of brick without the weight. Window shading devices (right) are made of terra-cotta square sections threaded on position-sleeved steel rods.



the channel glass is an 18-inch cavity, sized primarily for the light fixtures inserted between the two layers. White polyvinyl chloride (PVC) sheeting covering the stud wall provides a reflective surface for these lights, helping achieve the glowing effect the architects sought.

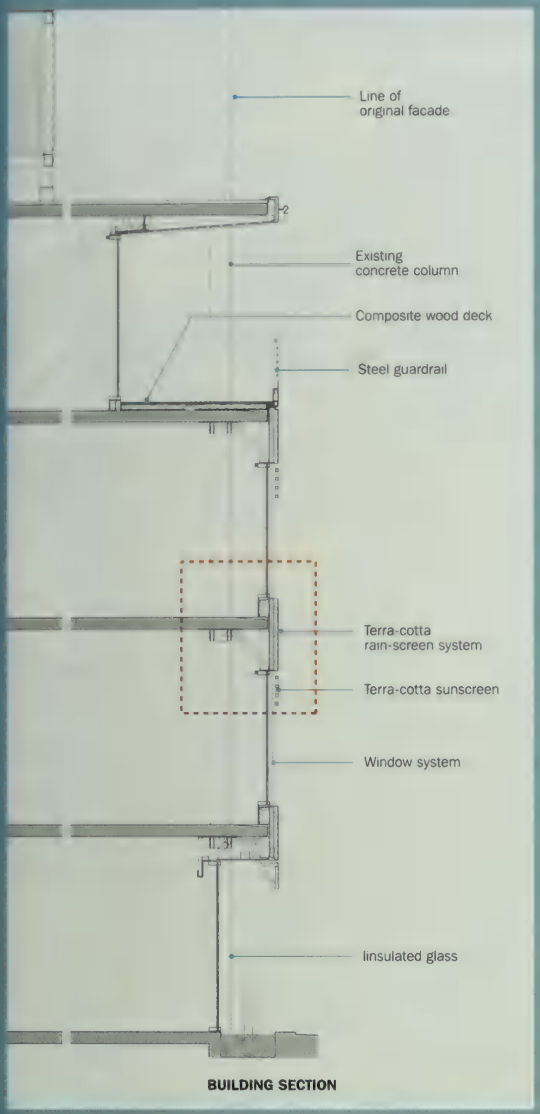
Classification conundrum

Although the ICA, along with other cavity-wall buildings, has cladding that is separate from its weather-resistant enclosure, some industry experts would not classify its facade as a rain screen because it is not a pressure-equalized system. According to a more narrow definition, a rain-screen wall is one designed to neutralize wind currents on the inside and outside surfaces of cladding so that pressure differences do not drive water through gaps or flaws in an assembly and into a building interior.

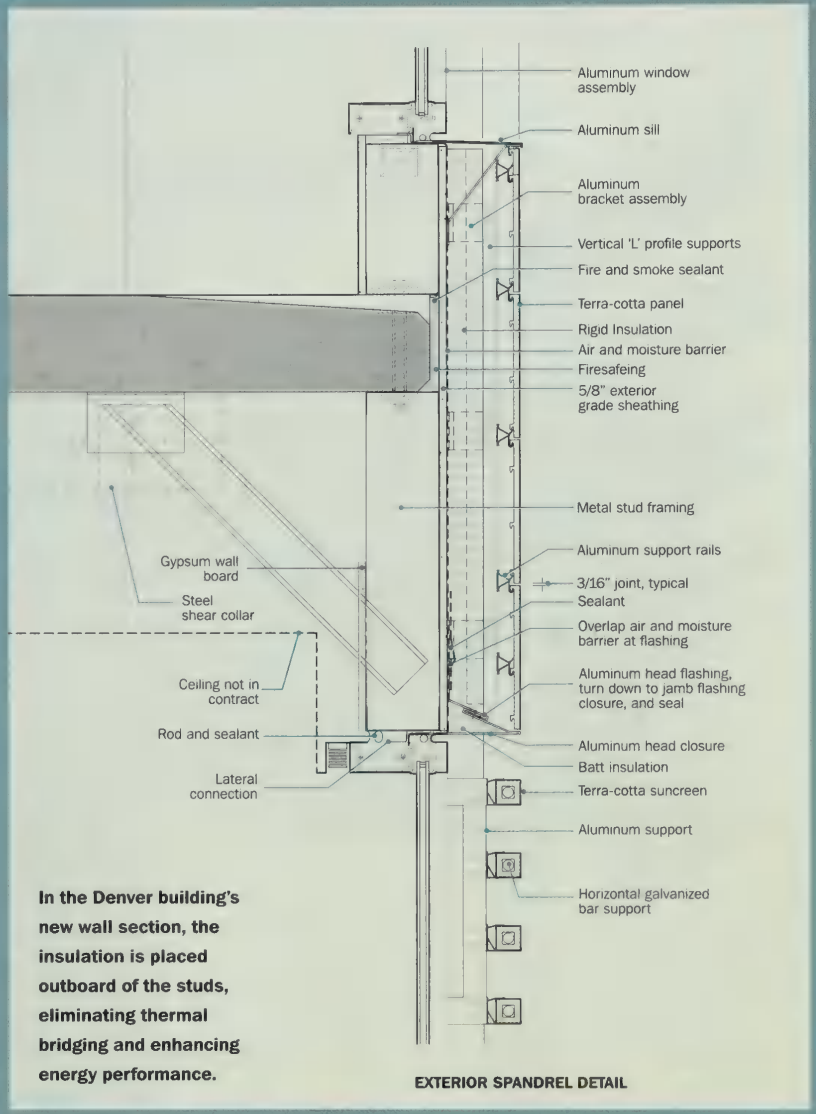
Walls designed with these pressure differences in mind are said to conform to the so-called "rain-screen principle" and are sometimes referred to as "pressure-equalized rain screens." Such systems are composed of an airtight plane protected by an open-jointed or vented cladding. Separating these two layers is a cavity or air chamber. The joints are sized so that air, but little or no water, can pass through as gusts buffet the cladding, equalizing the pressure on the exterior and within the cavity.

Experts say that an effective air-barrier system—one that has low air permeability, structural strength, and continuity over gaps—is an essential component for creating the required airtight plane. As part of the backup wall, an air barrier reduces the flow of air through the assembly and greatly contributes toward reducing the air-pressure differential across the rain screen, according to the National Research Council Canada (NRC). "In a pressure-equalized system, an air barrier is absolutely necessary," concurs Schwartz.

The NRC recommends compartmentalizing the cavity, so that as wind pressure varies across the building face, air does not flow from high-pressure areas to lower-pressure areas, carrying water with it. Generally, smaller and more rigid compartments can respond more quickly to pressure changes than those that are larger and more flexible, explains Madeleine Rousseau, a council research officer and coauthor of



BUILDING SECTION



In the Denver building's new wall section, the insulation is placed outboard of the studs, eliminating thermal bridging and enhancing energy performance.

EXTERIOR SPANDREL DETAIL

numerous papers on rain-screen systems.

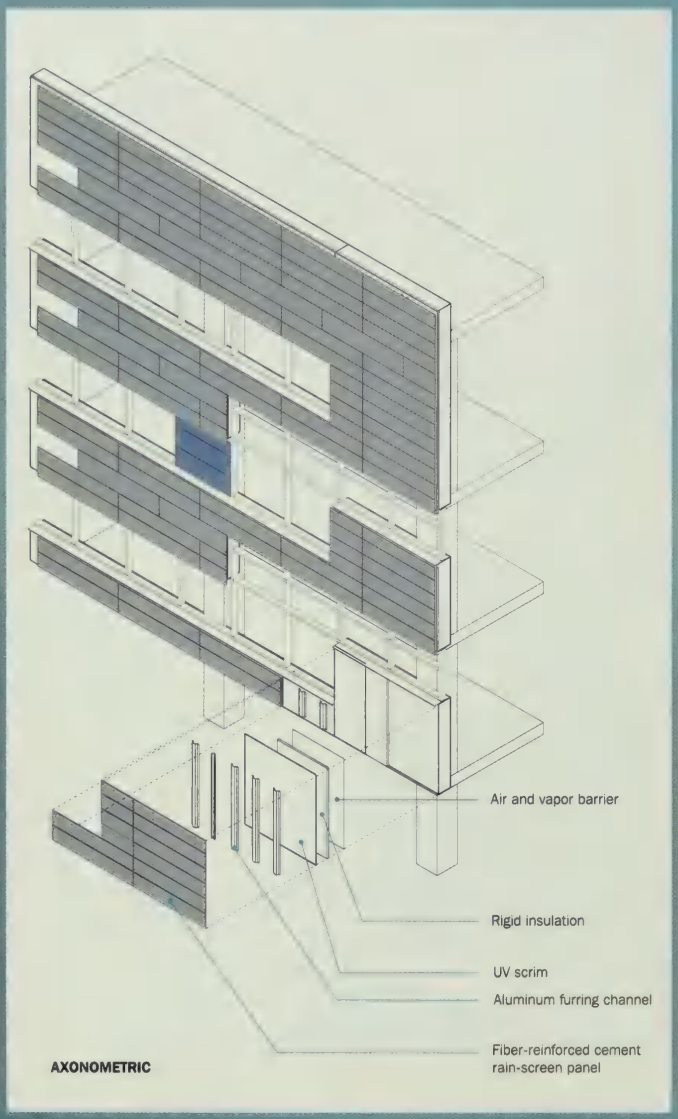
There is considerable industry debate about how best to size compartments. Efforts to create modeling tools especially tailored for this purpose are under way but not yet validated, says Rousseau. Compartment configuration is another area of discussion. However, NRC wind tunnel studies indicate that compartments should be smaller at locations vulnerable to large pressure variations, such as corners and parapets.

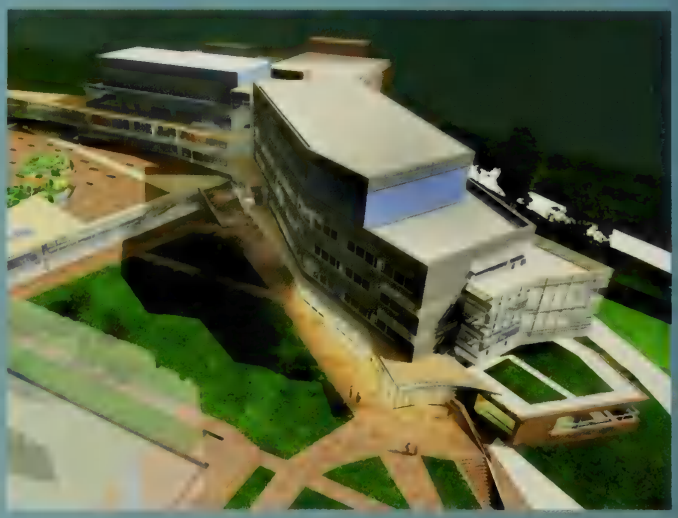
Weight-loss strategy

Despite the promise of performance advantages, worries about water penetration are often not the determining factor in the selection of a rain screen over a more traditional cladding system. For example, when 4240 Architecture renovated a 32,000-square-foot office building in Denver's Cherry Creek neighborhood, the need for a lightweight system made a terra-cotta rain screen a good choice. Because the concrete floor slabs of the four-story building, constructed in 1963, were not up to current code, the architect was limited to systems that weighed no more than 10 pounds per square foot. Even after reinforcement of the structure at column locations with shear collars, the use of brick, the client's preferred material, was not an option. "That is what led us to terra-cotta, which has the warmth of brick," says Geoffrey Brooksher, AIA, 4240 senior associate.

NARROWLY DEFINED, A RAIN SCREEN IS A SYSTEM DESIGNED TO REDUCE PRESSURE DIFFERENTIAL ACROSS CLADDING.

During the nine-month, $4 million gut renovation project completed in spring 2006, the contractor, PCL Construction Services, reduced the building to its structural frame, removing interior partitions and finishes. It replaced the original glass curtain wall and expanded metal sunscreen facade—which had earned the building the nickname "the cheese grater"—with a wall assembly composed of standard 6-inch metal-stud framing, sheathing, a combined vapor and air barrier, rigid insulation, and the ½-inch-thick terra-cotta panels hung







Parts of a research facility for Brandeis University will be clad with fiber-reinforced cement panels. Although the assembly will be open-jointed, it will not be compartmentalized and is not designed to achieve pressure equalization. The architect was drawn to the system because it allows expression of the north facade (top) as components that hang from the building, in keeping with the glass curtain wall planned for the south facade (above).

on an aluminum angle and support rail system.

The relative position of the materials provided energy-performance benefits, according to Brooksher. Because the cladding system was lightweight, the architect was able to pull the rain screen away from the face of the slabs and provide enough space outboard of the stud wall for 3 inches of rigid insulation. The configuration eliminated thermal bridging, or loss of heat through the studs, and increased the insulation's effectiveness by about 30 percent, he says.

To prevent pressure variation across the cladding surface, and to help the cavity achieve pressure equalization, each panel is surrounded by a ⅜-inch open joint, and the cavities within the four facades are divided into discrete compartments with aluminum closures, or delimiters, at the building's corners. The team decided not to pursue further compartmentalization because the basic wind-loading calculations required by code for any facade system, rain screen or otherwise, indicated that the building face did not have a large variation in wind pressure, according to Brooksher. However, he adds, "In larger buildings, compartmentalization is a bigger issue."

Wall components primarily intended to serve other purposes can sometimes do double duty as air-chamber delimiters. This was the approach followed by Renzo Piano, in collaboration with local architect Lord Aeck Sargent, when the two firms created a villagelike complex to expand Atlanta's High Museum. The High project, completed in late

RAIN-SCREEN COMPONENTS FUNCTION AS A SYSTEM BUT ARE OFTEN DELIVERED AND BUILT AS SEPARATE PARTS.

2005, has a rain-screen system composed of 4-foot-by-12-foot aluminum panels surrounded by ¼-inch reveals and hung about 2 inches off the building's weatherproof stud backup wall. Steel fins run vertically between each row of panels and project beyond the edge of the facade.

Although Piano conceived the fins primarily as a device for casting shadows on the building surface, they also break up the cavity

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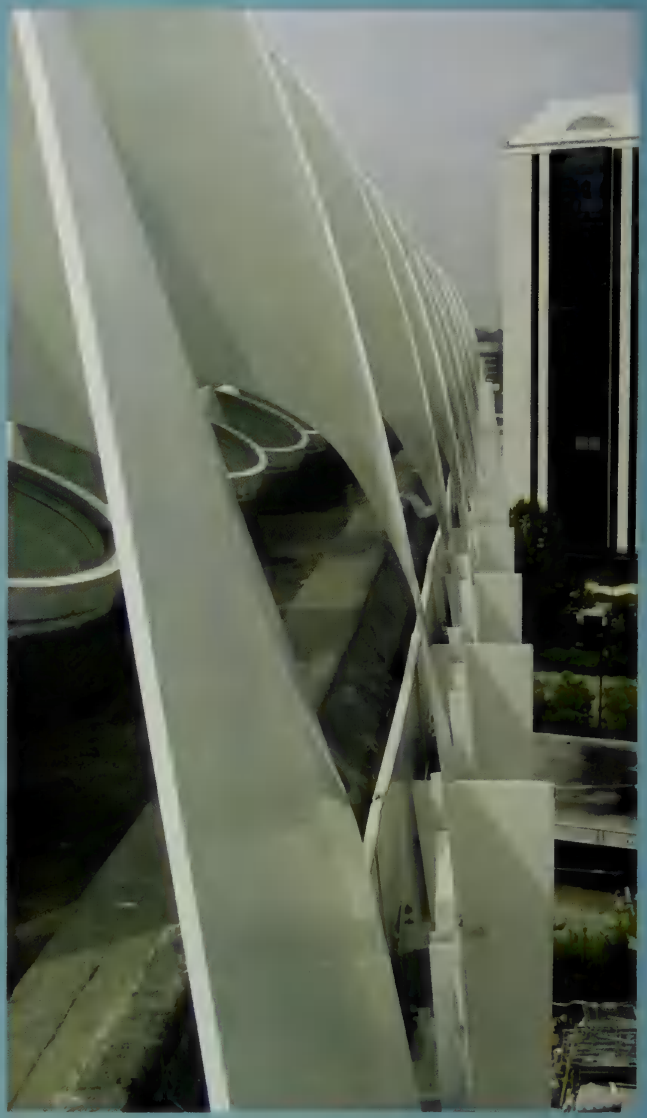
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The primary function of the vertical steel fins that project from the reveal between the aluminum panels cladding the High Museum is to add visual interest to the facade surface. However, the fins also act as air-chamber delimiters, slowing the flow of air gusts through the cavity. At the parapet level, the aluminum panels transform into skylight sunshades.



internally and slow the flow of wind gusts through it. Because of the relatively low height of the museum's complex of buildings (about 75 feet) and the protected courtyard space that their configuration creates, a separate compartmentalization strategy was not necessary, according to

IMPROPER FLASHING CAN BE THE ACHILLES HEEL IN AN OTHERWISE WELL EXECUTED EXTERIOR WALL SYSTEM.

McClelland of Arup, the project's facade consultant. "If it were a 40-story building, we would have been more concerned," he says, echoing Brooksher's comments about 4240's Denver project.

A distinctive feature of the High's rain screen is its integration with the devices that shade the museum's signature round light scoops. The top row of aluminum panels bend above the parapet to transform into sail-like screens that prevent direct sunlight from entering the galleries below. Arup performed three-dimensional analysis and ordered a full-scale mock-up of the panel to identify any inherent weaknesses in the unusual shape.

The diversity of components and the number of construction trades involved sometimes presents a challenge for rain-screen projects like the High expansion. At the High, three primary subcontractors were responsible for the building envelope—one for the stud backup wall, another for the steel fins and their attachment to that backup wall, and a third for the aluminum panels and their frame—complicating coordination of stud locations and the rain-screen structure. "The facade works as a system but is delivered as separate parts," says McClelland.

The choice of a rain screen also had construction advantages, points out John Starr, AIA, Lord Aeck Sargent partner in charge of the High project. Because the architectural envelope is divorced from the weather barrier, quick erection of the building's enclosure is possible, he says. Rain screens are particularly well suited for a museum because it is a building type with a high percentage of solid wall and few windows. "The basic box can go up and be weatherproofed quickly," he says.

In contrast to the High, a planned sciences research facility for

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Brandeis University, near Boston, has large expanses of glazing. The south facade of the 200,000-square-foot building, planned for completion in 2011, will be almost entirely glass curtain wall with sun-shading devices. But Payette plans to clad other areas with open-jointed, fiber-reinforced cement panels. Although one material is transparent and the other opaque, both are part of a strategy to detail the building as a series of layers, says Kevin Sullivan, AIA, principal in charge of the project. "Expressing these materials as components hung [from the building] was appealing from an aesthetic point of view," says Sullivan.

The panels will be mounted on aluminum furring channels and anchored to a backup stud wall. Although there will be an approximately 3-inch gap between the panels and the rubberized asphalt membrane that serves as an air and vapor barrier, the assembly is not compartmentalized and not designed to achieve pressure equalization, according to Michael Louis, principal of SGH, the project's facade consultant.



The High's designers built a mock-up of the skylight sunshade to identify any weaknesses inherent in the sail-like shape.

The Brandeis project's panels will dissipate some of the kinetic energy of wind-driven rain. However, the real defense against water penetration will be the membrane adhered to the stud-wall sheathing, says Louis. The project is now in design development, and SGH is detailing window penetrations and connection points between the panel assembly and the glazed curtain wall to make sure the air and vapor barrier is continuous, and properly detailed flashing is provided.

Flashing can be the Achilles heel of an otherwise well executed exterior wall system, according to Schwartz, Louis's colleague at SGH. He stresses the importance of careful detailing, correct material selection, and proper installation. Schwartz recommends, for example, that through-wall flashing extend beyond the building face, and points to the unfortunate but common practice of specifying flashing material with only a 5 to 10 year life span in an assembly expected to last half a century. "It is critical that the expected service life of the flashing match that of the rest of the building," he says. ■

AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- Read the article "Rain-Screen Facades Are More Than Skin Deep" using the learning objectives provided.
- Complete the questions below, then fill in your answers (page 195).
- Fill out and submit the AIA/CES education reporting form (page 195) or download the form at archrecord.construction.com to receive one AIA learning unit.

QUESTIONS

1. A rain screen is broadly defined as which?
- **a.** a brick wall
- **b.** a stud wall
- **c.** cladding that is separated from the weather-resistant barrier with a cavity
- **d.** a channel-glass wall

2. A typical masonry cavity wall helps prevent water penetration due to all except which?
- **a.** surface tension
- **b.** gravity
- **c.** capillary action
- **d.** pressure differential

3. Narrowly defined, a "rain screen" must do which?
- **a.** have a vented cladding
- **b.** reduce pressure differential across the cladding
- **c.** have compartmentalized air chambers
- **d.** all of the above

4. An effective air-barrier system does which?
- **a.** has continuity over gaps
- **b.** reduces the flow of air through the wall assembly
- **c.** helps reduce air-pressure differential across the rain screen
- **d.** all of the above

5. The purpose of compartmentalization is to prevent which action?
- **a.** air flowing to lower-pressure areas carrying water with it
- **b.** air flowing to higher-pressure areas carrying water with it
- **c.** air-pressure stabilization
- **d.** air stagnation

6. The architect increased the energy efficiency of the Denver office building's wall assembly by which?
- **a.** placing insulation between the studs
- **b.** placing insulation outboard of the studs
- **c.** using an air barrier
- **d.** compartmentalization

7. Atlanta's High Museum rain screen includes devices to shade the light scoops for which reason?
- **a.** all rain-screen walls include shading devices
- **b.** to direct daylight into the museum
- **c.** to keep direct sunlight out of the galleries
- **d.** to keep the museum cooler

8. Rain screens are particularly well suited to museums for which reason?
- **a.** museums need humidity control
- **b.** museums have few windows
- **c.** rain screens control direct sunlight
- **d.** rain screens add security features to buildings

9. Which is not true of the planned research facility at Brandeis University?
- **a.** it will include a glass curtain wall
- **b.** the rain screen will consist of fiber-reinforced cement panels
- **c.** the rain screen will be mounted on aluminum furring channels
- **d.** the rain screen will be designed to achieve pressure equalization

10. Which is generally true of rain-screen air-chamber compartments?
- **a.** more flexible compartments react more quickly to changes in pressure
- **b.** more rigid compartments react more slowly to changes in pressure
- **c.** compartments should be smaller at locations vulnerable to large pressure variations
- **d.** compartments should be larger at locations vulnerable to large pressure variations



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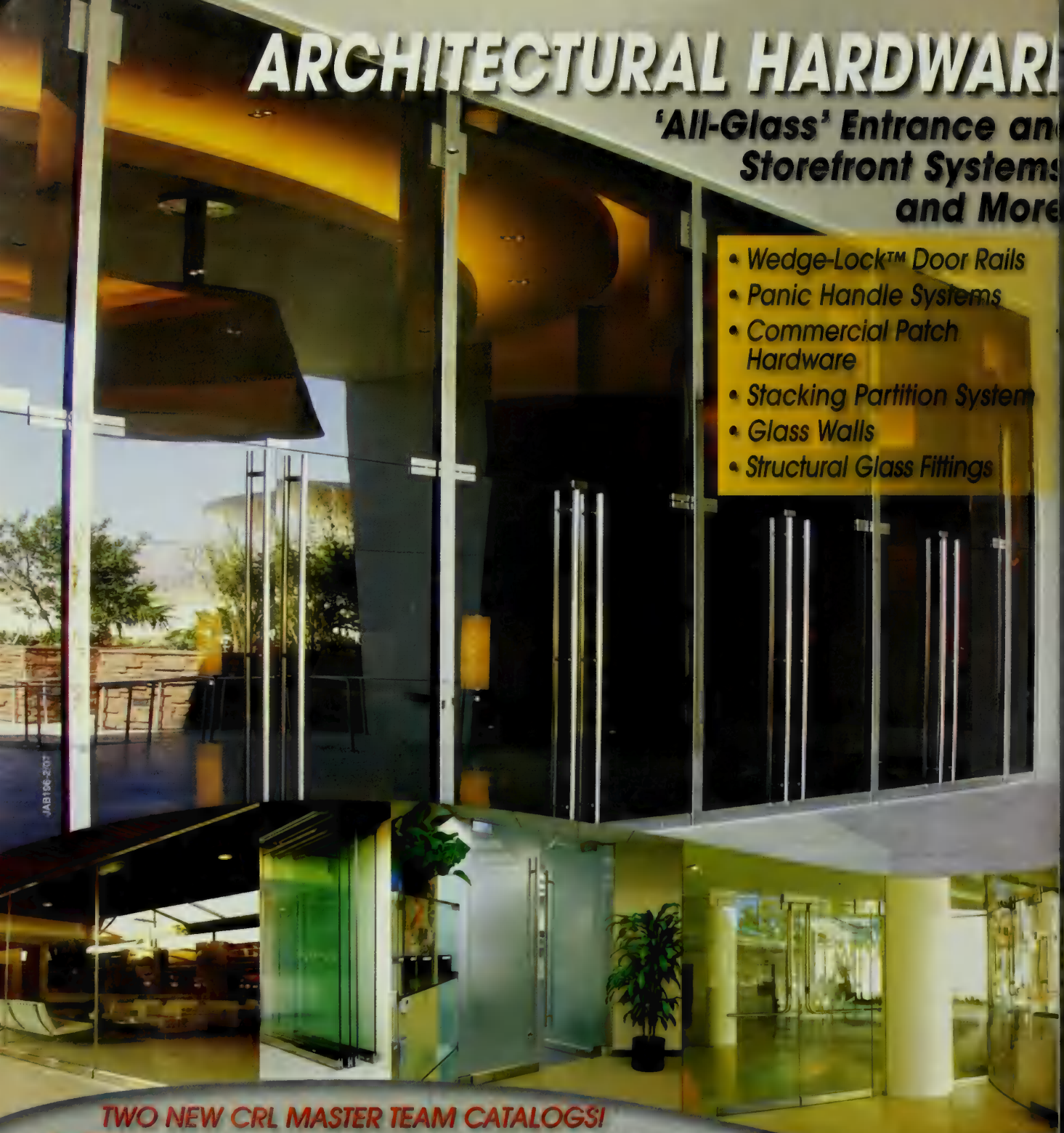
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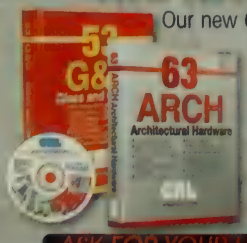
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Tech Briefs

Vegetated carpets thrive on exterior walls • An enclosure for a German concentration camp museum transcends convention with an innovative vacuum-sealed structural facade

Vertical and verdant, living wall systems sprout on two buildings, in Paris and Vancouver

Though still far from commonplace, green roofs are appearing on buildings with increasing frequency as designers tout their environmental benefits. But horizontal surfaces are not the only part of building envelopes that are sprouting green—gardens are also appearing on exterior walls. Two recent examples are a pleasingly unruly, 8,600-square-foot vertical garden covering one face of Ateliers Jean Nouvel's Musée du Quai Branly, in Paris (see page 86), and a lush, 500-square-foot vegetated wall that is part of a building that opened in November at the Vancouver Aquarium, in Canada.

In addition to the obvious aesthetic appeal, their designers say these vegetated walls offer many of the same advantages of green roofs, including purifying the air and reducing ambient temperatures. Like their horizontal counterparts, vertical gardens can also provide thermal insulation, acoustical control, and a habitat for insects and small animals.

Because these French and Canadian examples integrate the plant material into the building envelope, both can be classified as living walls, explains Randy Sharp, principal of Vancouver-based Sharp & Diamond Landscape Architecture, the designer of the aquarium vegetated wall. Another more common type of vegetated wall is a green facade, which uses a trellis or other training device to support the growth of vines from the ground or from elevated planters, he says.

About 150 plant species are growing at Quai Branly, where the wall is composed of a polyvinyl chloride (PVC) sheet on a metal frame. The sheet serves as a waterproof layer, provides rigidity, and prevents roots from penetrating the drywall-and-stud assembly beyond, says Jean-Luc Gouallec, a botanist and consultant for the wall's designer, Patrick Blanc. The plants grow in a layer of acrylic felt stapled to the PVC. A drip irrigation system supplies water and periodic fertilization. Maintenance, primarily trimming of overgrown plants, is conducted about three times a year, says Gouallec.

The Canadian wall, part of Aquaquest, a $19 million learning center designed by Clive Grout and Stantec, is an entirely different kind of system. One-foot-square, 3½-inch-deep polypropylene modules hold the growing medium and plant materials, which are similar to those found on cliff faces, including wild flowers, mosses, and berries. The containers are secured to a stainless-steel frame that is in turn anchored to the building's poured-in-place concrete wall. A secondary frame on the outside of the containers also helps hold them in place.

Water is supplied via an automated drip system, as at Quai Branly. However, the Aquaquest project uses rainwater collected from the roof and stored in an underground cistern to irrigate the living wall, as well as to flush toilets and refill freshwater fish tanks. Sharp says he is keen to design a vertical garden as part of a gray-water recycling system that would capitalize on the water's nutrients as fertilizer and cleanse it for further use. *Joann Gonchar, AIA*



About 150 plant species are growing on one face of the Musée du Quai Branly, in Paris (left). Required maintenance, primarily trimming of overgrown plants, is conducted about three times a year.



Polypropylene boxes containing pregrown plants such as flowers, mosses, and berries compose the vertical garden at the Vancouver Aquarium. A stainless-steel support grid secures the boxes to the building's structural poured-in-place concrete wall.



Tech Briefs





An innovative vacuum-formed facade provides a sober enclosure for museum

The fetish of the neutral white box remains as popular as ever in architecture, but structural engineer Werner Sobek has now taken it further.

In his design for a shelter for a withered World War II–era crematorium on the grounds of the 1942 Sachsenhausen concentration camp, Sobek turned to the ubiquitous formal device as a way to keep architecture from upstaging the somber atmosphere of the place. But far from implementing a conventional gypsum-board box for what is now a museum called *Station Z*, he developed a vacuum technique that adheres the translucent polytetrafluoroethylene-coated fiberglass outer membrane to the underlying steel structure with few additional attachments.

"We wanted to achieve a simplicity through complex engineering techniques," says Sobek, whose firm has offices in Stuttgart, Frankfurt, and New York. The project, which opened in 2005 in celebration of the 60th anniversary of the camp's liberation, was a collaboration between Sobek and Stuttgart-based architect HG Merz. Sobek's team sought to update traditional textile-based construction for the museum, located 22 miles north of Berlin, by taking out the sagging appearance and proliferation of fittings typically associated with tensile fabric structures. Sobek says that since only the ground-level foundations and floors of the crematorium buildings remain, it was important to him that the architecture of the museum protect the site in an aesthetically pleasing way with the least visual presence.

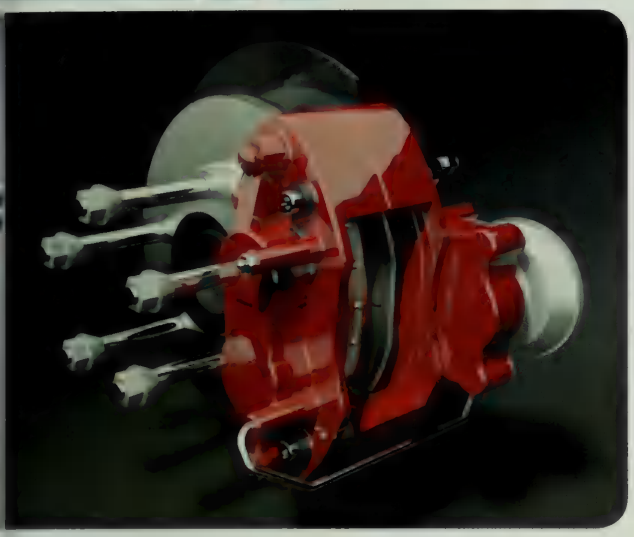
SOBEK SAYS HE WANTED "SIMPLICITY THROUGH COMPLEX ENGINEERING."

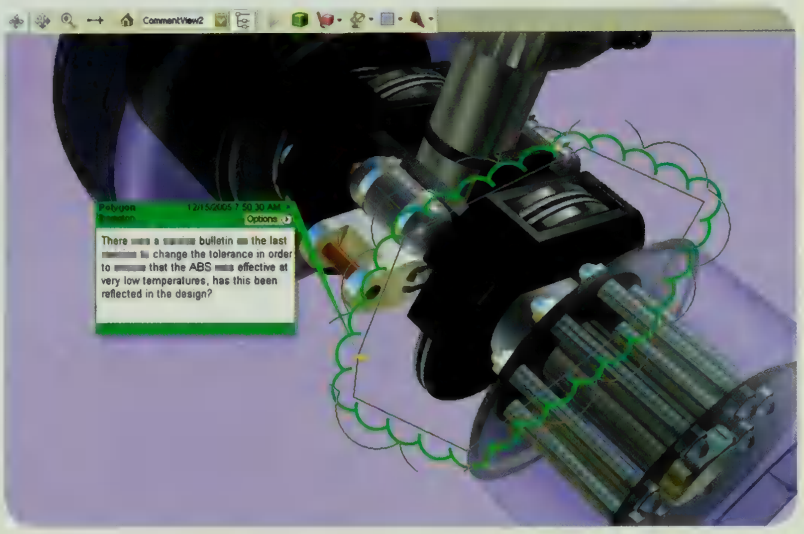
The membranes for the walls and ceiling were stretched onto steel grating attached to the main structural elements. In the 39-inch space that separates the interior and exterior surfaces, contractors introduced a vacuum continuously maintained by baffled radial fans located nearly 230 feet away. The vacuum seamlessly keeps the membranes in place, while a pressure regulator ensures an internal range of 0.01 to 0.23 pounds per square inch in response to fluctuating wind speeds. Minor attachment points were accommodated inside the relatively airtight structure, out of view of visitors.

The result is a clean, white plane that silhouettes the steel structure, framing the crematorium buildings' remains in a 120-foot-by-130-foot box while acting as a muted surface for contemplation. The grating's grid, backlit by the sun, provides visual relief and human-scaled definition to what could have been an infinite field of white. The project, which took only six months to construct, represents Sobek's commitment to integrated design, recently profiled in his work for the Mercedes-Benz Museum in Stuttgart [RECORD, November 2006, page 195]. *Russell Fortmeyer*

The underlying steel structure and continuous grating are visible through the fiberglass membrane vacuum-sealed in place. Fans maintain internal pressure at all times.







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Lighting

New York state of mind: Lighting designers in Brooklyn and Manhattan enhance architecture near and far

BRIEFS

Columbia architecture students got a lesson in lighting from Linnaea Tillett, featured here for her illumination of a park in Lower Manhattan (see page 154). For a special social event that took place late last year, the native New Yorker and Parsons The New School of Design instructor was asked to assist students to create a "special-effects chandelier on a shoestring budget," she says. Many hours of experimentation, mock-ups, and LED-lifting later, the crew perfected a party lighting scheme that had revelers peering overhead in awe. Read more about it this month by surfing to the Lighting page at www.archrecord.construction.com. **And for the groovesters at EMI Music in London,** MoreySmith recently designed distinctive lighting for a five-story headquarters in Kensington, which accommodates 300 staffers. From color-changing LEDS to sleek Italian luminaires in the "meet and greet lounge," the office has a personal ambience often missing from the workaday world. Stay tuned for more details. *W.W.*

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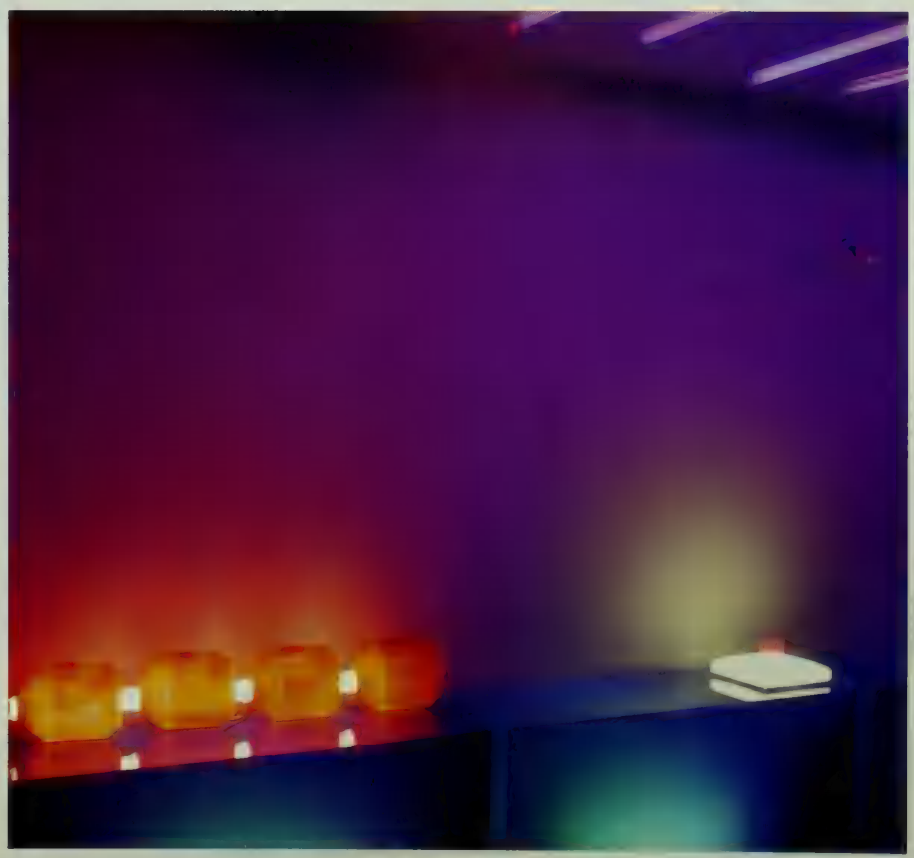
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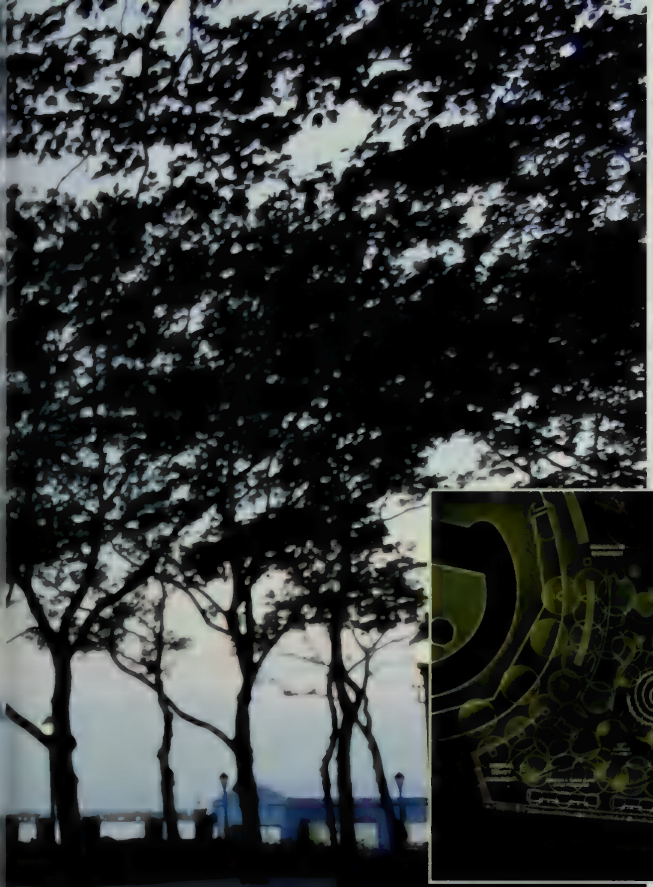
A tree grows in Brooklyn, of course, but so too does creativity sprouting on almost every street corner. Its neighborhoods are thriving with an influx of real estate investment and a community of artistic converts from Manhattan, plus design-savvy expatriates from Europe and Asia. This month we shine a light on three designers, all of whom have traveled the globe, perfected their craft, and settled down in their New York borough of choice to tackle the challenge of illuminating the world. Linnaea Tillett, familiar to readers of these pages, recently moved her studio from the Upper East Side to Williamsburg. She is still leaving her mark on Manhattan, however, with the recent lighting of the Battery Bosque along the Hudson River. Fellow Brooklynite Julian Lwin is a British import with a knack for inventive fixture design (below). And Abhay Wadhwa, who was born in India, now lights up projects from Mumbai to West 13th Street from his Manhattan workshop. Enjoy our New York special report. *William Weathersby, Jr.*

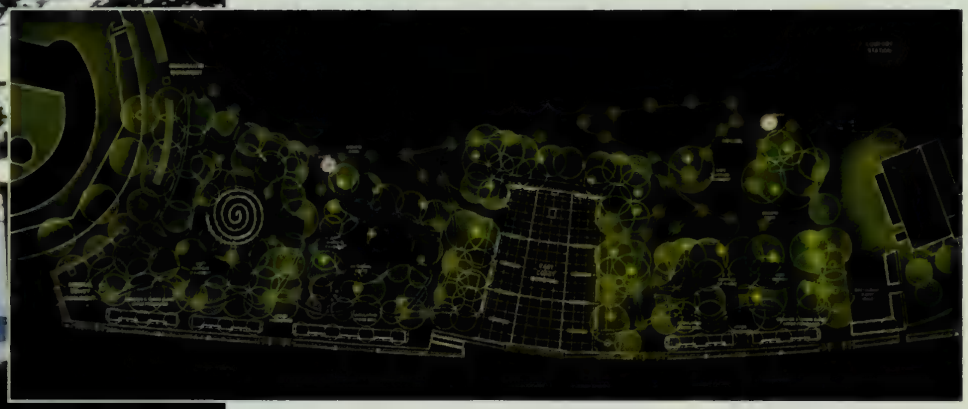


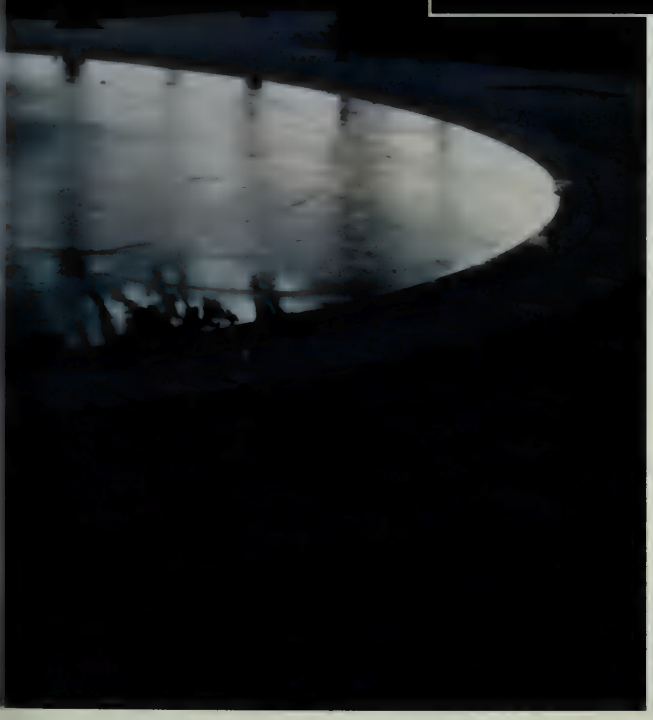


"Light through water" is the theme of illumination at the recently enhanced Battery Bosque in Lower Manhattan, says lighting designer Linnaea Tillett (above and opposite, plan.)

Linnaea Tillett graces the **Battery Bosque** along the Hudson with subtle nighttime lighting







PHOTOGRAPHY: © AMY BARKOW, EXCEPT AS NOTED; RENDERING: SETH ELY/TILLETT LIGHTING DESIGN

By William Weathersby, Jr.

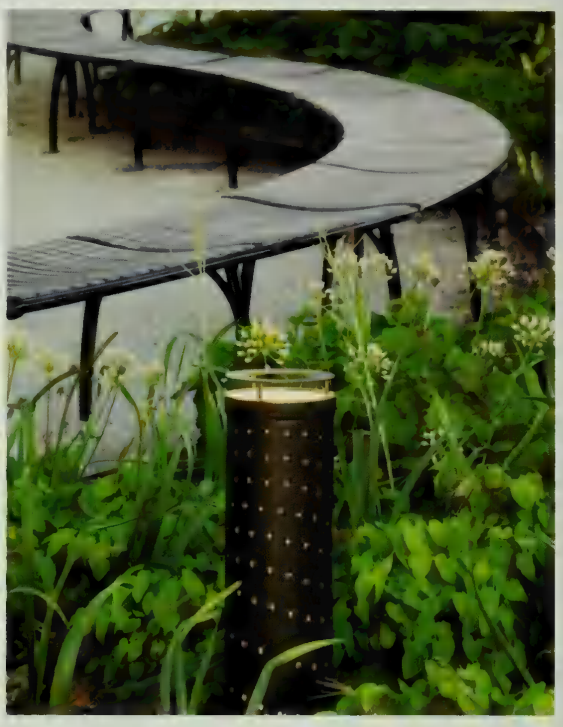
Poised on the southern tip of Manhattan, just blocks from the World Trade Center redevelopment site, Battery Park is one of New York City's oldest open public spaces along the Hudson River. At the forefront of ongoing, post-9/11 renewal programs in Lower Manhattan is the revival of the Battery Bosque, a park-within-a-park, which was recently renovated to promote quiet recreation, the display of public art, and the community's enjoyment of unrivaled vistas of New York Harbor and the Statue of Liberty.

The refurbishment project, sponsored and funded by the New York City Parks and Recreation Department, in collaboration with the nonprofit group the Battery Conservancy, is a makeover of the 3-acre pocket park situated adjacent to the neighborhoods of SoHo and Tribeca. With the redesign, it's now a welcome social oasis on the western fringe of Manhattan.

The Bosque was the creative brainchild of Dutch landscape design superstar Piet Oudolf (who had previously created the environmentally sustainable gardens and performance lawn of Frank O. Gehry's Millennium Park concert pavilion in Chicago, among many other high-profile assignments). The Saratoga Associates and Wiesz + Yoes

Project: *Battery Bosque, New York City*
Clients: *New York Department of Parks and Recreation; The Battery Conservancy*
Lighting designer: *Tillett Lighting Design—Linnaea Tillett, principal designer; Russ Burns, senior designer; Seth Ely, project associate (rendering)*
Architects: *Weisz + Yoes Architecture—Claire Weisz, Mark Yoes principals (benches, fountain, kiosk)*
Garden designer: *Piet Oudolf*
Landscape architect: *The Saratoga Associates—Jeff Poor; Laura Starr*





The kiosk (above), is internally illuminated with metal halides to appear as a nighttime beacon. The perforated-cylinder housings of the custom bollards (right and below) also function as lanterns that cast light on surrounding foliage.

Architecture were the landscape architect and designer, respectively, of the architectural elements of the Bosque.

Yet after dusk in Manhattan, what is a stroll along the river without the effect of dappled moonlight filtered through leafy trees, or perhaps harbor lights diffused by incoming fog? (Think Woody Allen's moody black-and-white cinematography in the cinema classic *Manhattan*.)

Adding a crucial extra level of aesthetic sophistication to the Bosque's design is subtle illumination conceived by consultant Linnaea Tillett, principal of Brooklyn-based Tillett Lighting Design. With only a handful of custom bollards and an array of fountain uplights, she and her colleagues have "cast light up through the water of the fountain, and riffed off the play of harbor lights cascading along the Hudson River," she says. Technically proficient as it is deceptively simple—the lighting helps to create a " 'living-room-style' rest area of sorts for the local community," according to project client Laurie Price, director of the Battery Conservancy. "Local citizens with children have never felt safer or more content coming over to this zone at night," she affirms.

The anchor of Tillett's lighting plan is a series of bronze-painted "firefly lights," which are custom-designed and fabricated bollards tucked among the low-standing plantings. They provide ambient illumination across the grove to encourage evening strolls. "The key to the redesign and lighting plan," Tillett says, "was to facilitate neighborhood and tourist use of the park by commuters, passersby, and anyone wandering through the zone to enjoy the scenery and waterfront attractions."

The primary pathways leading to the river are clearly lit by traditional, pole-mounted fixtures, which over several decades have become New York City Parks and Recreation Department standard luminaires. (They were originally adapted and specified by lighting designer Howard Brandston.) Departing from convention, however, Tillett's specially designed bollards encompass multiple applications, lighting volumes both horizontally and vertically. The fixtures invite parkgoers to enter different zones, or " outdoor rooms," Tillett says. The combination of the existing pole-mounted fixtures that downlight walkways along the river, supplemented by the new low-grazing, calf-height bollards, "provides a sense of safety, exploration, and delight," says Price.

After experimenting with multiple variations of bollard mock-ups over the course of several months, Tillett opted finally for a fixture she refers to as "the birdbath." Besides aesthetics, which were a priority for city administration officials, she says, "the clients' goals for the Bosque's luminaires were safety, maintenance, and vandal-proofing. We designed a fixture that would stand up to rain and snow, abuse from children or adults playing or jogging through the park, and even pets that might interact with the electrical beacons." Tillett, who trained academically as a psychologist as well as a lighting designer, says this outdoor illumination assignment "started as a perceptual problem—how to get light up into the trees while creating an intimate scale and charming ambience. The last thing the New York City Parks staff wanted was floodlights."



Each "birdbath" bollard features a disklike ring set atop a painted, perforated cylinder that houses a PAR30 uplight set into the ground. "After our experimentation with weather and water factors, the final bollard design is actually quite streamlined and simple," Tillett says.

"We worked with the architects and landscape designers to ensure that the heights of the plants, the custom, Jatoba-wood benches, and every other element of the Bosque is in tune," Tillett notes. "The upgraded park might seem to laymen like a minor enhancement, but that was the subtle final effect the entire design team was aiming for."

With the sleek bollards joined by metal halides uplighting a fountain that cascades toward the treetops, the Bosque now is a new destination soon to be dog-eared as a hot spot on many Manhattan maps. ■

Sources

Custom garden bollards: *Louis Poulsen, with Philips Lighting lamps*

MR16s: *GE*

Fountain effects and lighting: *Fountain in a Can*

In-grade metal-halide uplights, and pole-mounted floodlights: *Hydrel, with Philips Lighting lamps*

PAR30 lamps: *Philips Lighting*

Benches: *Soheil Mosun*

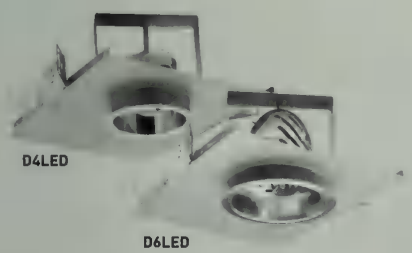
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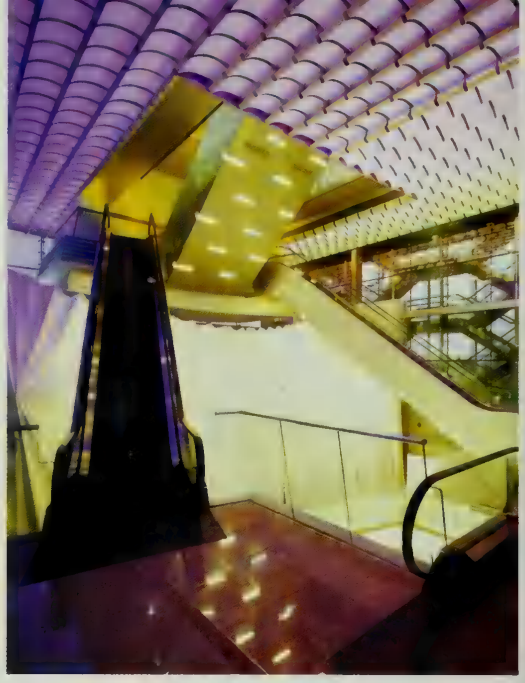


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Raised in New Delhi and Mumbai, New Yorker **Abhay Wadhwa** takes his light show global

Peak Tower *(above and below) Hong Kong*
Architect: *Terry Farrell (original); Ronald Lu and Partners (renovation)*

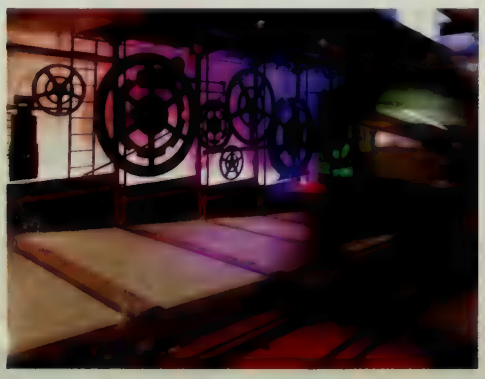
By John Peter Radulski

While growing up in Mumbai, India, during the 1970s and '80s, Abhay Wadhwa had little idea that one day he would helm his own architectural lighting design firm based in New York City, he says. Nor did he envision that the roster of projects for his practice, AWA Architectural Lighting Designers, would be his passport to a globetrotting adventure that has led him to enhance the form and function of an array of buildings around the world. These days, Wadhwa shuttles for several weeks most months between his Manhattan base to assignments in Chicago, Asia, and India. He collaborates with an in-house, 15-member team of interior designers, engineers, and architects. (The staff is split between offices in Dubai, Mumbai, Hong Kong, and the Manhattan headquarters.)

After receiving his B.A. from the Sir J.J. College of Architecture in Mumbai, Wadhwa worked as an architectural designer and then a theatrical set and lighting designer. His creative, career-shaping epiphany came, he says, as he strode the catwalk high above a theater stage. "It was the first time I had selected a range of very specific color gels and dif-

John Peter Radulski is a writer and editor based in South Norwalk, Connecticut. He regularly contributes to RECORD*'s lighting and interiors special sections.*





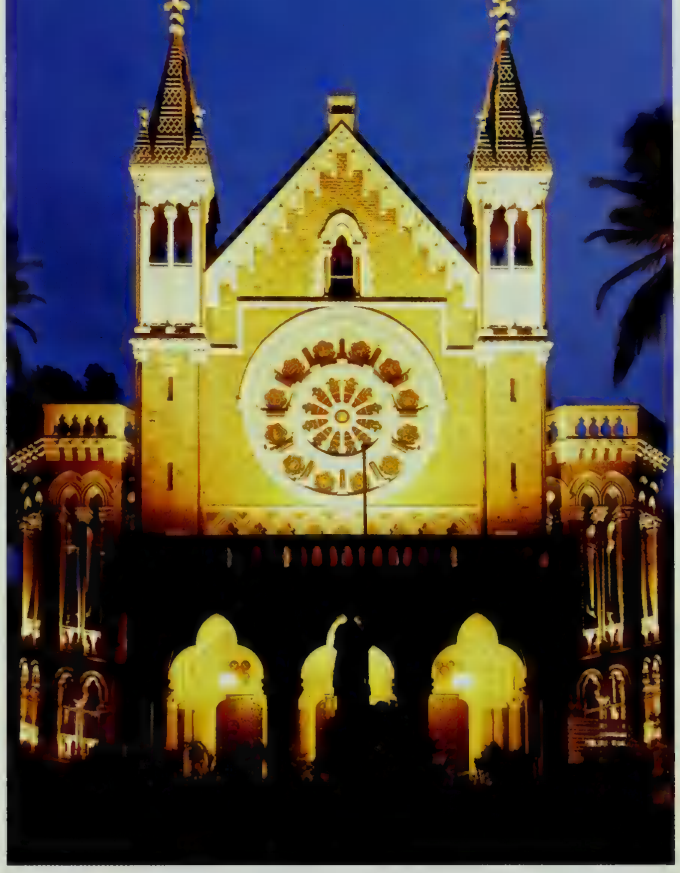


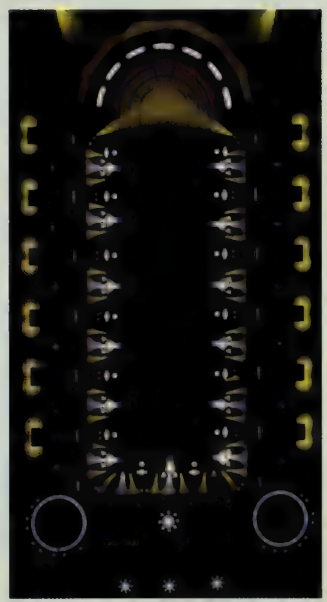
fusers, saw the magical results they could achieve, and focused my first rig of light fixtures. I was hooked right then on pursuing the discipline of lighting design full time. Now, 20 years later," he adds, "I still have a passion for lighting, and my roster of assignments allows me to work on the bigger stage of large-scale architectural projects."

Wadhwa immigrated to the United States in 1993 to attend graduate school at the University of Southern California, then went on to earn a Master of Science degree from the Lighting Research Center at Rensselaer Polytechnic Institute in Troy, New York. (He has been an adjunct assistant professor there for the past three years.) For the following five years, Wadhwa worked on staff at several Boston and Manhattan lighting design firms, collaborating on high-profile projects such as the illumination of the George Washington Bridge and other landmarks. He went out on his own to establish his firm, Available Light: NY, in 2003. The company was renamed last fall.

From his downtown Manhattan studio on LaGuardia Place, down the block from the AIA Center for Architecture, Wadhwa focuses on both small- and large-scale projects for private, corporate, and institutional clients. The three projects shown here demonstrate the technical acuity and visual finesse that Wadhwa brings to his work. Whether it's a historic Indian meeting hall in Mumbai or a sleek new multiuse center in Hong Kong, the lighting suits the site well, heightening the sensory experiences tied to time, place, and visual ambience.

The Peak Tower in Hong Kong (opposite) was designed by architect Terry Farrell and completed in 1997. The shapely, contemporary building sits atop the 1,800-foot-high Victoria Peak and offers locals and tourists dining, shopping, and entertainment venues blessed with spectacular views of Victoria Harbor, the Hong Kong cityscape, and the island of Kowloon. A fast-track renovation was launched in January 2005 and completed last November. Working with architect Ronald Lu and Partners, Wadhwa and his colleague Wai Mun Chui developed an interior and exterior lighting program that would entice visitors to circulate through the entire building. A new tram runs on a funicular railroad that makes the 1,800-foot ascent from the mountain's base to the high-end restaurants atop the Peak.







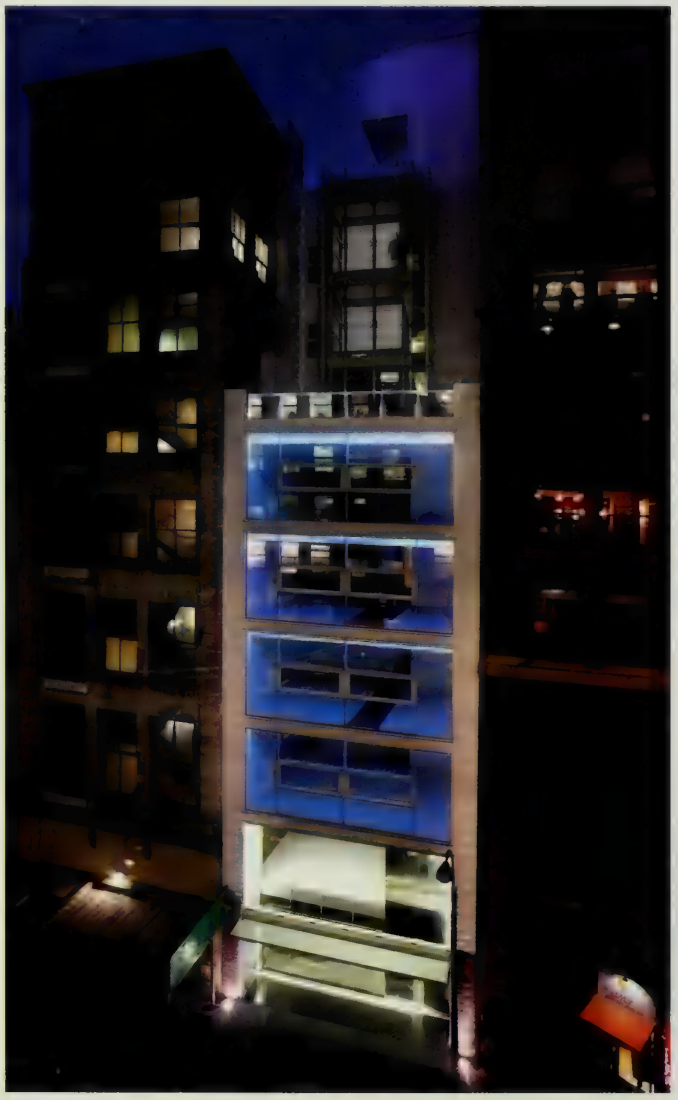
As railcars enter the tram station (located on level four of the tower), a wall embellished with full-size railway cogs is fitted with LED "color-blasters" that cast sweeps of multicolored light as the railcars arrive.

A short walk through the retail shopping zone leads visitors to an expansive main atrium. Here AWA created a signature lighting element that Wadhwa calls the "magic visual moment" for visitors. Approximately 700 2-by-2-foot convex panels are each fitted with a LED lighting strip. Computer-operated controls create pixelated, illuminated images ranging from text messages to sweeps, cuts, and fades. Walls surrounding the escalators are composed of end-lit fiber-optic strands integrated into corrugated metal cladding. Wadhwa likens the effect of the tram trip to ascending through an effervescent sea of champagne—an appropriate simile, since the escalators lead to the upmarket dining venues on the tower's penthouse level.

AWA faced a different type of lighting challenge at the University of Mumbai's Convocation Hall (this page). The meeting venue was constructed during the British Colonial reign of India, between 1869 and 1874, following the plans of architect Sir George Gilbert Scott. The



Convocation Hall, University of Mumbai
Mumbai, India
Architect: *Sir George Gilbert Scott (original); Abha Narain-Lambah (historic restoration)*



ornate sandstone building is graced by stained-glass windows depicting the 12 zodiac signs, and a grand rose window. The facility has served as a meeting and lecture hall continuously since its completion.

To mark the university's 150th anniversary, the hall was restored over six months under the direction of UNESCO-award-winning architect Abha Narain-Lambah. Collaborating with the architect on the lighting, Wadhwa says the challenge was to illuminate both the interior and exterior of the hall without physically altering the historic structure in any way. To this end, wiring and installation specifications were minimized and streamlined.

Outside the hall, the designers achieved a visual warmth by specifying metal-halide and HP sodium lamps. The team rewired and relamped the original pendants that hung in the entrance loggia. "We created a visual hierarchy for the exterior," notes Wadhwa, "that starts with the subtly lit building base and becomes more brilliantly illuminated as you ascend the elevation." The four towers that punctuate the corners of the hall appear as lighthouselike beacons.

Inside the hall, the floor plan replicates that of a church, with main seating on the ground level and bench seating set along a mezzanine that wraps three sides of the main space. Here Wadhwa aimed to replicate the gentle light that had been the interior's hallmark—originally provided via gas in the 19th century, with fixtures later converted to electricity. A series of 14, three-globed, cast-iron fixtures attached to the mezzanine railing were restored and rewired to accommodate compact fluorescent lamps. The center glass globe of each fixture is fitted with a 32-watt lamp, and each additional globe accommodates an 18-watt lamp. Below each of these 14 upright luminaires, a single fixture fitted with an 18-watt compact fluorescent downlight appears to sprout from the floor.

The restored fixtures had originally been the major lighting source for the room, providing ambient illumination for daytime events, but were inadequate to illuminate the hall for nighttime lectures and special events. Wadhwa solved this practical problem—and helped visually articulate the hall's decorative elements—through a range of techniques.

Composite fixtures each comprise a pair of track-mounted, 150-watt, metal-halide floodlights. An array of 75-watt, narrow-spot QR111 incandescents are installed along the mezzanine, adjusted to wash the arched ceiling, the lower level of the hall, and the stage. Below the stained-glass windows, 54-watt fluorescent strips subtly uplight the newly restored artworks. Additional fixtures discreetly installed within the side aisles and several other strategic locations give the Convocation Hall a new, technically efficient versatility while only subtly affecting the physical integrity of the structure itself. The glowing, historic ambience of the venue remains, only enhanced by layers of refined light.



3 West 13th Street
New York City
Architect: *Ari Oster Architecture*

Closer to home, Wadhwa recently completed the exterior illumination of 3 West 13th Street in Manhattan. Designed by Ari Oster Architecture, the building sits on a shallow, narrow lot. Four condominiums rest atop two retail floors. Sidewalk-inset metal halides wash the side brick walls. Fluorescents edge a terrace railing to visually replicate a cornice. And windowwide, linear LED strips on the fifth floor team with shades to create the splashiest effect, a colorful light box. "Visually, it's like filling the building with water, then watching it drain out," Wadhwa says, before walking the few blocks to his nearby studio, where he will work out the details of another lush-color dream of shadow and light. ■

Sources

Peak Tower

LED ceilings and walls: *William Artists International; LSI (track)*

Color sweeps in tram station: *Color Kinetics*

Convocation Hall

Fixtures: *Gemini Global; GE*

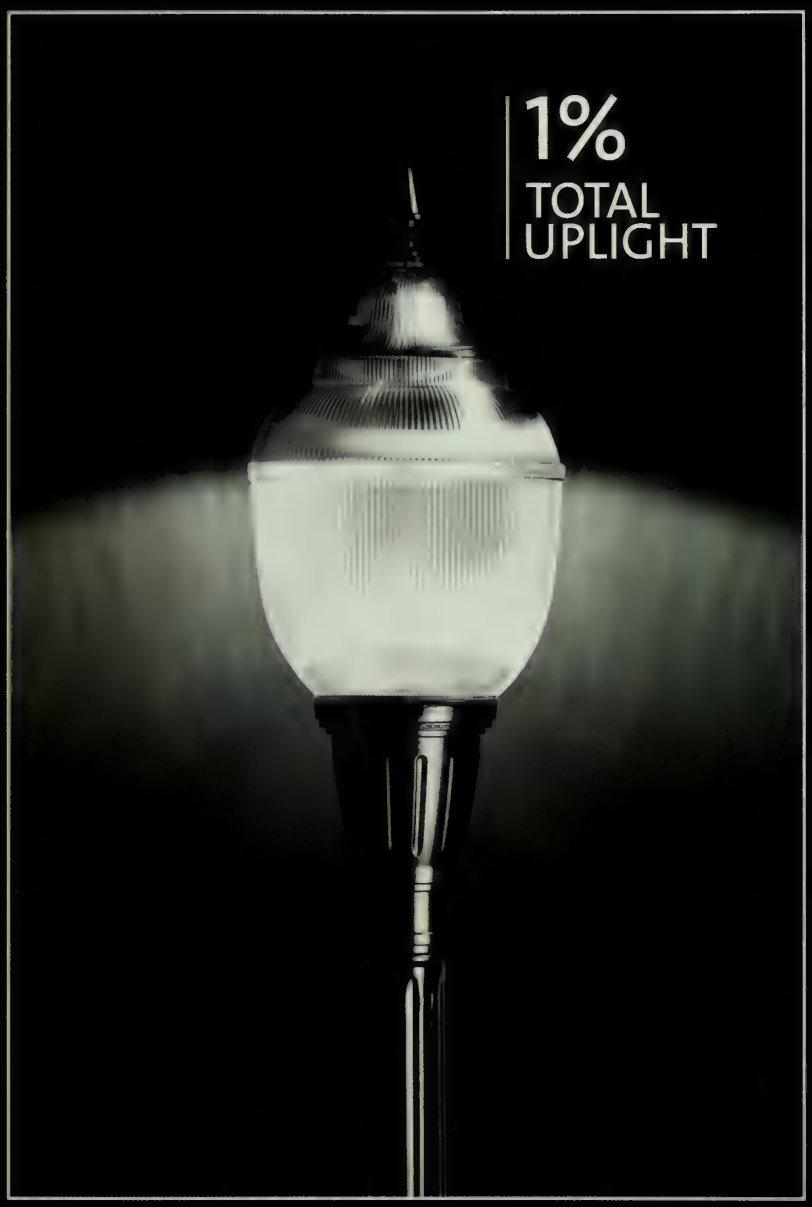
3 West 13th Street

LED systems: *ALS; CLS*

Shades: *MechoShade*

For more information on this project, go to Lighting at **archrecord.construction.com**.

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Brooklyn's **Julian Lwin** takes a full-spectrum approach to lighting

By David Sokol

While the Brooklyn, New York, neighborhood of Williamsburg is now the picture of urban cool, walking toward Marta and Julian Lwin's loft offers a glimpse of the area's seedier, not-so-distant past. The sidewalks outside this converted doll factory—a no-name, under-the-radar address in a rapidly gentrifying neighborhood—are as solitary and dark as the interior stairwells are grimy. Behind closed doors throughout the three-story building, however, young artists, musicians, and designers are abuzz with activity.

Lwin, a full-time lighting and furniture designer working under the professional banner Lwindesign, combines his studio, showroom, and home in one 2,000-square-foot, two-floor space. The multitasking inner sanctum virtually vibrates with his energetic product designs, awash in a spectrum of brilliant colors. The atelier encapsulates the seductive, secluded dynamism of this enclave of creative neighbors, and signals the strides already made by the 38-year-old British designer since he launched his burgeoning Stateside career seven years ago.

The contrasts between perception and reality, form and function, aren't lost on Lwin, whose lighting fixtures and furniture pieces employ color for much more than decorative effect. As a design student at London's famed Central Saint Martins College of Art and Design, in fact, he wrote his thesis on the psychology of color.

"Blue is a very calming, peaceful hue," Lwin says, launching into a passionate yet casual discourse about his favorite topics, color and light. "Watery colors are almost never depressing. And oranges, magentas, and yellows always up the tempo of an interior space."

While Lwin says he has heard the admonition "green makes you look sickly" more times than he can count, he insists that the color is, emotionally speaking, a neutral canvas perfect for capturing and reflecting light.

Lwin began creating luminaires, furniture, and other products in 1999, after immigrating to the United States with his artist wife Marta. First, he moonlighted while working for the industrial design firms Smart Design and Frog Design. He launched Lwindesign in 2002.

The designer says he has never considered any color off limits. A temporary environment commissioned for the Metropolitan Pavilion, a commercial exhibition space in New York City's Chelsea neighborhood, provides a gauge of the innovator's fearlessness. Attaching LEDs to a steel armature, Lwin divided the 10,000-square-foot party space into discrete vignettes, each saturated with a different bright color. The furniture and upholstery were selected to either contain or reflect light as well.

Lwin's work is well suited to LED technology because it allows him to create fixtures that cycle through color changes, he says. When programmable LEDs won't do the trick for creating the moody environments he envisions, he relies on Marta, who in addition to her own art career specializes in computing, to write code.

Marta also avidly collaborates with Julian on "materials procurement." While pursuing a master's degree at New York University, for example, she spotted a bundle of 6-foot-long, ¼-inch-diameter acrylic







The LED-embedded Colorfuse Lamp (top) modulates colors to create different mood settings. It can also remain static, set to one hue. Acrylic rods salvaged from a dumpster, cut into segments, then polished, enhance the Arctic Circle Lamp (bottom).





At New York City's Metropolitan Pavilion, Lwin created a tunnel structure (right) and several vignettes, such as a blue room lined with Verner Panton chairs (below). The temporary interior installation used a combination of programmable LEDs fitted with color gels.







For the inflatable Ice House (right), Lwin strikes a cozy note by contrasting a warm interior with purplish blues outside. After learning that colored light has the same depression-fighting success rate as Prozac, Lwin designed Prozac Fluoxetine Lamp (below), which features a sketch of the medication's active ingredient. Proving that one man's trash is another's treasure, Lwin salvaged empty laundry detergent bottles to construct the lamp called $250K (bottom).

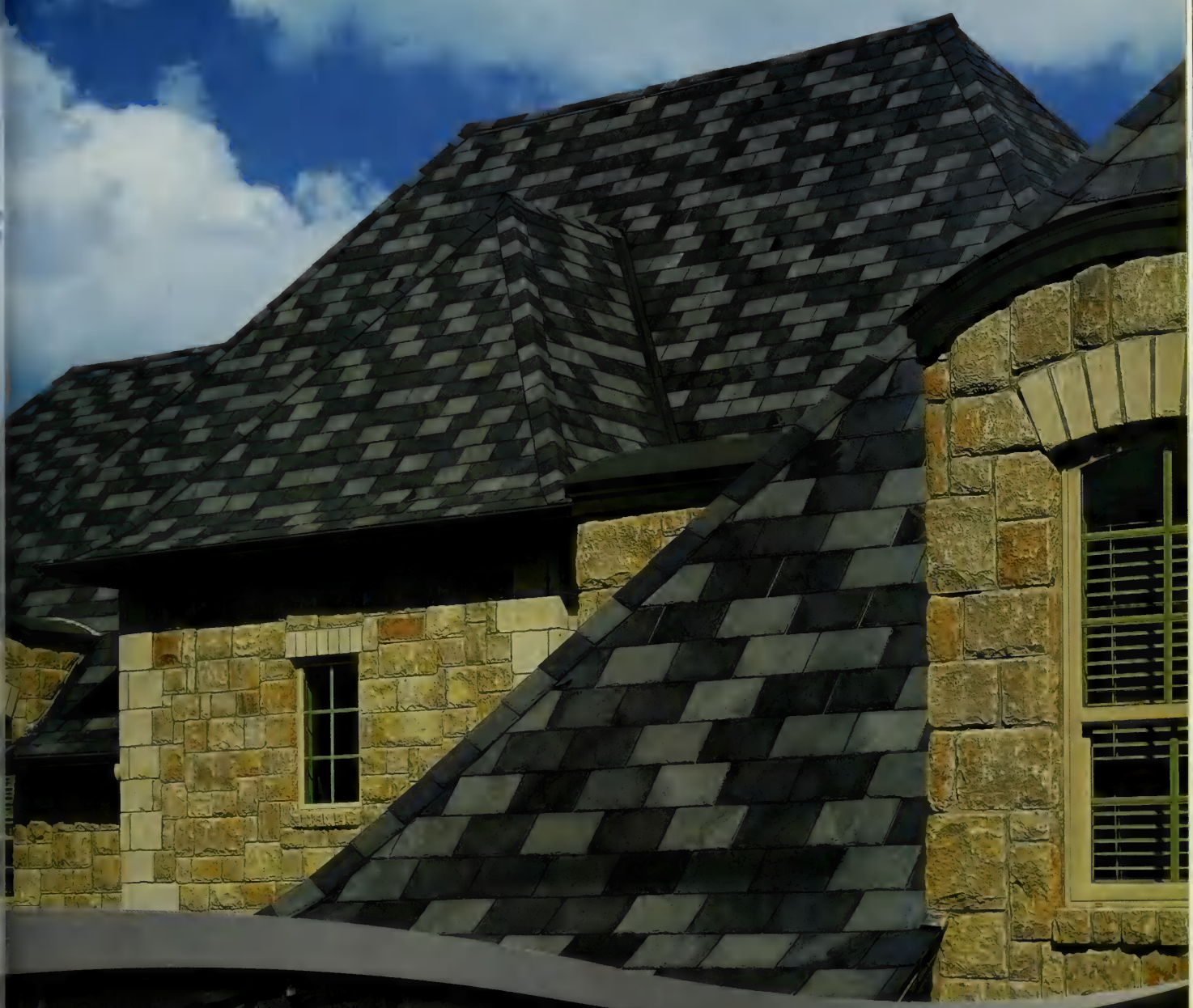
rods peaking out of a campus dumpster. Most likely science-lab detritus, the materials were the perfect raw material for Julian, she realized, so she grabbed them and hauled them home.

He now deploys sections of the 300 polished rods in works like Flight Lamp, a luminaire in which the rods penetrate a LED light box. The acrylic shafts create pinpoints of light that when grouped together form the silhouette of birds in flight along the surface of the lamp. In another piece, the Arctic Circle Lamp, the rods are less illustrative, and instead give this petite tabletop luminaire a more sculptural shape.

Lwin approaches his adopted New York homeland and its citizens' notions of beauty with a wry sense of humor and heavy dose of social and environmental tolerance. Indeed, Lwin sees the recycling of his fellow urbanites' castoffs as the ultimate creative challenge. Besides repurposing the acrylic rods, he created another lamp from laundry detergent bottles left on trash day. The lamp's name, $250K, represents the approximate research and development cost of making five such containers.

Some of Lwin's designs are semiotically biting as well. Inspired by the depression-fighting properties of colored light, the rods of one of his luminaires form the outline of fluoxetine, the active chemical in Prozac.

The designer thrives on tackling technical challenges, and is particularly keen on exploring cellulose-based plastics, for example. He's also on the prowl to find like-minded corporate clients. Aveda, the sustainable beauty products giant, is one subject of Lwin's daydreams: The company communicates its sustainable message in subtle earth tones, but Lwin says the company could just as effectively preach its cause with brightness. "I'm not afraid of color," he affirms. "I believe in color, infused with light, as its own product." ■



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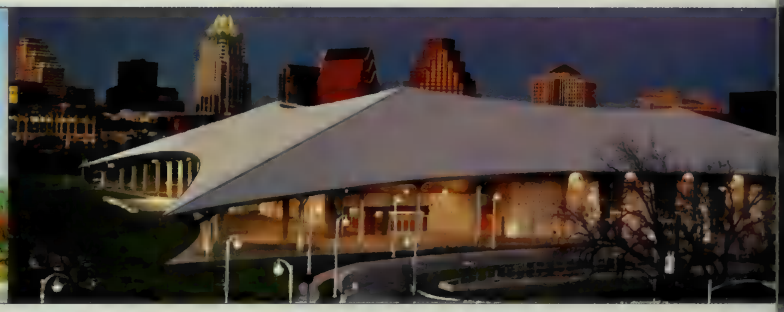
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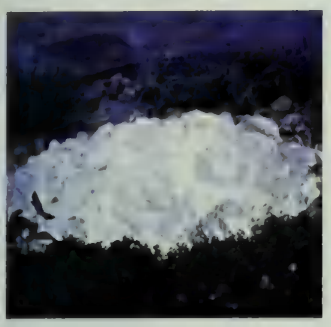
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◄ A departure from the status-quo

CL Sterling & Son's exterior lighting collection includes electrified candles contained in polished or brushed chrome-, nickel-, or bronze-edged glass cylinders and squares (middle and near left). Designer Peter Carlson was inspired to create the Rock Crystal Collection after finding a pile of glassblowing debris on a factory floor. To form the fixtures, the glass remains are cracked into chunks and bound by silver wire. The 21"-high ground version (far left) uses a single 100-watt halogen bulb. CL Sterling & Son, Lyme, Conn. www.clsterling.com **CIRCLE 216**

▼ Protection from the night

The Corral family of luminaires includes an architecturally designed light column (below) and bollard. Both fixtures feature protective die-cast aluminum rings integrated around an impact-resistant diffuser. The fixtures feature vandal-resistant fasteners, various height options, and a choice of one, two, three, or four 32-watt fluorescent lamps. Ideal for high-traffic locations, such as schoolyards, hospitals, stadiums, parks, and pedestrian malls. Selux, Highland, N.Y. www.selux.com/usa **CIRCLE 217**





◄ Welcoming beacons

The Venere Series is a vertical sconce designed to illuminate building doorways, entrances, and perimeter pathways. Venere is available in two styles, traditional and contemporary, and can be configured in six different optical patterns. The series utilizes energy-efficient lamp sources and is designed with a built-in, MR-11 lamp source system for instant-on illumination to meet egress-lighting-code compliance during a power failure. Architectural Area Lighting, La Mirada, Calif. www.aal.net **CIRCLE 218**

► Plates of light



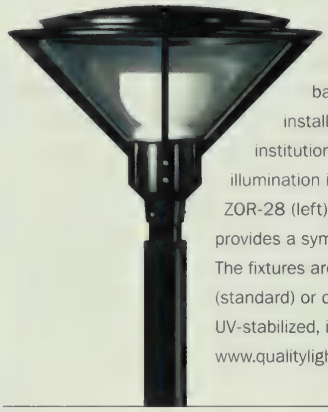
Gardco's Fascia Plate system allows for a variety of mounting locations, including low-level placement for signage and corporate branding, and mid- or high-level placement to define building volumes and enliven the nighttime environment. The plates are either recessed or discreetly surface-mounted into building surfaces to decorate, secure, or identify. They come in square, painted, stainless-steel, copper, and tiled faces and with color filters that layer into the system. A variety of embossed styles, with or without optional acrylic panels behind the plate, can help accentuate a structure day or night. Gardco Lighting, San Marcos, Tex. www.sitelighting.com **CIRCLE 220**

▼ Wind/PV hybrid system

This wind- and solar-power generation system can provide illumination at remote, off-the-grid locations. The system relies on the WS400 wind turbine and/or solar panels that convert wind and sun power into electrical energy stored in the battery for use as required by the lamp. The maintenance-free, long-life sealed battery provides up to six days reserve power. SinoStar Lighting Group, Foshan City, China. www.duxlite.com/combinestreet.htm **CIRCLE 219**



Lighting Products Outdoor/Landscape



◄ Pedestrian-scale post-top luminaires

The Design Z-28 series of post-top luminaires include a cold-weather battery backup ideal for egress pedestrian lighting in cold climate installations. The lights are well suited for a broad range of commercial, institutional, and municipal applications where high-performance, glare-free illumination is needed from stand-alone post-top luminaires. The ZOB-28 and ZOR-28 (left) designs utilize a luminous diffuser around the lamp. Each model provides a symmetrical Type V distribution pattern of evenly diffused illumination. The fixtures are constructed of durable die-cast aluminum in a choice of black (standard) or custom polyester powder-coated finishes. The lens is a clear, UV-stabilized, impact-resistant polycarbonate. Quality Lighting, Franklin Park, Ill. www.qualitylighting.com **CIRCLE 221**



▲ First step in the line

FC Lighting has commissioned JK Yao, an award-winning, Taiwan-based lighting designer, to develop a series of product lines for retail, educational, hospitality, government, and other commercial installations. The first offering in the JK Yao Visions line is a line of architectural-grade LED step lights. The line includes 15 square "slot" and rectangular "slope" step-light configurations that can be customized in color, finish, and lamp. A heavy-duty, tempered clear spread lens for even distribution and maximum coverage is standard. FC Lighting, Addison, Ill. www.fclighting.com **CIRCLE 223**

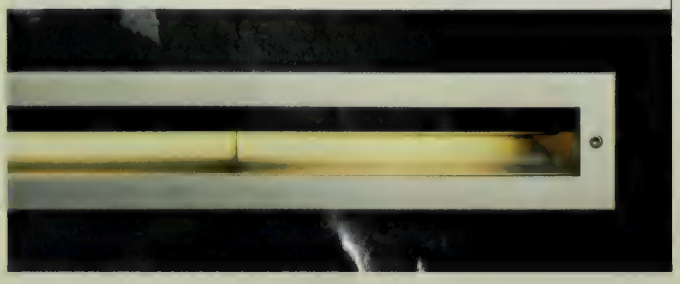
► Next generation inground projector

Louis Poulsen Lighting has introduced IPR14, a new line of high-performance inground lighting projectors designed to address the installation, performance, and maintenance issues often related to inground lighting. The projector allows for a simpler mounting process, high-performance optics, and a low operating temperature on the top plate. Other features include anti-vandal screws, corrosion-resistant components, tempered glass, a 358-degree rotation mechanism, and the ability to house any of five reflectors ranging from an 8-degree spot to a wall-wash distribution. Louis Poulsen Lighting, Fort Lauderdale, Fla. www.louispoulsen.com **CIRCLE 222**



▼ Linear in-grade luminaire family

Bega/US has introduced a family of drive-over-rated linear in-grade fluorescent luminaires that are ideal for facade and sign illumination or marker lighting for pedestrian walkways. The sleek and shallow profile is useful in tight spaces, while the high-output fluorescent lamping provides the added benefit of low and safe lens temperatures suitable for use in public venues. Offering symmetrical and asymmetrical distributions, the fixtures are available in 25", 48⅜", and 60⅞" lengths, and with 24-watt, 54-watt, and 80-watt T5 lamp options. Bega/US, Carpinteria, Calif. www.bega-us.com **CIRCLE 224**



► A clean, well-lighted place

Compliant with International Dark Sky standards, the Alari and Alari Plus high-performance area lighting fixtures are for parking lot, roadway, and other open-space applications. In addition to the standard horizontal lamp models, which come in all lamp wattages, Alari is offered with vertical lamps up to 200 watts. Vertical lamps provide superior uniformity, higher initial lumens, higher mean light levels, and longer lamp life than the same lamp in a nonvertical position. The Alari Plus offers Miro IV specular aluminum reflectors (95 percent enhanced), and a 98 percent efficient high-transmission glass lens. Juno Lighting, Des Plaines, Ill. www.junolighting.com **CIRCLE 225**



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Benny Chan/Fotoworks - photography

Product Focus Facades

This month, we present a collection of the latest metal, stone, and wood facade systems designed to keep buildings both pleasing to the eye and protected from the elements. *Rita Catinella Orrell*









Clockwise from top left: An apartment complex in Innsbruck uses BBS panels for all structural walls. This spa in southern Austria uses the panels in the overhang. In the small project shown here, they are used as simple monolithic walls. A detail showing part of a wall and roof made of the panels.

Austrian wood cladding option now available in the U.S.

A new, prefabricated solid-wood cladding option is available from Austrian manufacturer Binder Holzbausysteme exclusively through its U.S. representative, HolzBuild. The new cladding panels will be introduced at Construction Expo in New York City this May and at GreenBuild in Los Angeles in October.

Although the first U.S. project is still in the planning stages, the BBS panels have been in use in Europe for about five years. The multilayered, solid-wood wall panels are made of Austrian red spruce or larch, and come in 3-, 5-, 7-, and 9-layer versions. The standard panel width is 4.1', although multiple thicknesses and profiles are available. By laminating longitudinal and cross layers for the wall panels, the wood achieves greater strength and stability. Roof and floor panels are also available.

"One unique feature of these panels is that they are structural and have the potential to create a monolithic wall, and therefore a structural facade," says Antonio Guariento, owner and founder of HolzBuild.

A wall can be composed of vertically as well as horizontally placed panels. The inner layers of the BBS panels are normally manufactured in spruce and the outer layer in larch, which is better suited for exposure to the elements. The panels, made up of 99.4 percent solid wood and .6 percent formaldehyde-free glue, are installed without vapor or wind barriers. Each .016" layer of glue has a vapor-inhibiting effect, which provides the equivalent diffusion resistance of a 1.38" layer of spruce. This allows the walls to absorb or release air moisture as needed and create a comfortable interior environment, according to the manufacturer. HolzBuild, Watertown, Mass. ww.holzbuild.com CIRCLE 226

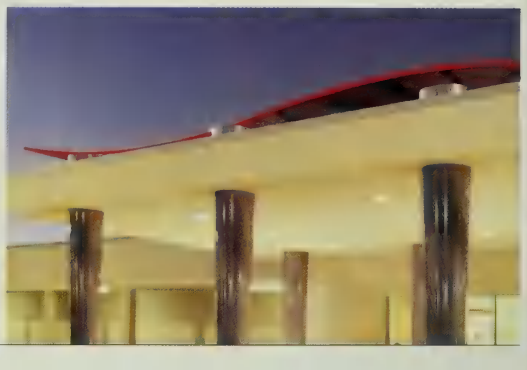


▲ Open joint panel system

A recent expansion of the Dallas Executive Airport includes a 4,000-square-foot facility that houses a control tower, lounges, and restaurants. Now Specialties, of Carrollton, Texas, fabricated and installed 30,000 square feet of Reynobond .16" aluminum composite; 4,000 square feet of Reynobond stainless-steel composite; and 1,300 square feet of Reynobond in a classic bronze finish for the terminal. The panel system incorporates open joints with integral gaskets so no sealants or weather barriers are required. Alcoa Architectural Products, Eastman, Ga. www.alcoaarchitecturalproducts.com **CIRCLE 227**

► Welcoming entrance

Designed by Atlanta-based Stegenga & Partners, the Sumter Regional Hospital in Americus, Georgia, features eight tapered column covers fabricated by Moz Designs. Shown in a pewter color with a Polycoat finish over a kelp pattern, the 13'-tall column covers protrude another 2' from the top of the main entrance's carport and support the wave roof. Moz Designs, Oakland, Calif. www.mozdesigns.com **CIRCLE 228**





◄ Affordable rainscreen

The facade of Zimmerman Construction Company's new precast-concrete headquarters building in Kansas City, Missouri, utilized 3,200 square feet of Dri-Design wall panels, a dry-joint, pressure-equalized rain-screen system. The .050" aluminum panels were finished in Kynar metallic Cooper Penny and installed in a diamond pattern. The system was suggested by the project's architect, Gould Evans Associates, when the client requested a more affordable system. The client installed the panels with technical assistance from the manufacturer. Dri-Design, Holland, Mich. www.dri-design.com **CIRCLE 229**

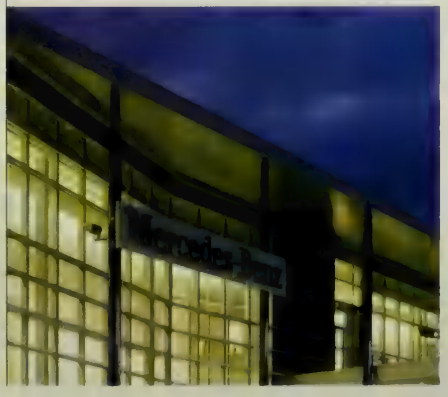


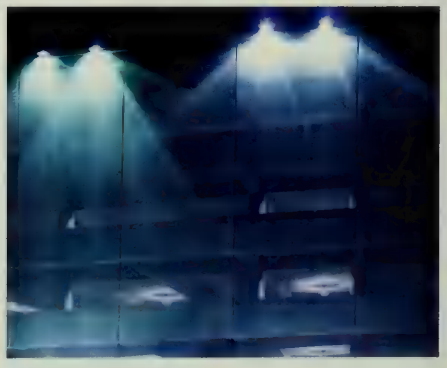
▲ Forget the ivy, this is stone clad

A new library at Baltimore's Morgan State University, designed by Design Collective and Sasaki Associates, features 28,000 square feet of quartzite cladding attached with the Fischer Advanced Curtainwall Technology system. The facade system features a stress-free stainless-steel undercut anchor suspended on an aluminum subframe consisting of horizontal and vertical members with specially designed wall holders. The substructure is wrapped in a ½" continuous layer of insulation and then 2" of rigid insulation, resulting in minimal penetrations to the insulation envelope. Probe Stone Facade Systems, Wayne, N.J. www.probestonefacadesystems.com **CIRCLE 230**

▼ Drawing them into the showroom

Loeber Motors Mercedes-Benz of Lincolnwood, Illinois, selected Petersen Pac-Clad composite wall panels as a key design element for the dealership's new facility. Approximately 1,800 square feet of .16" Reynobond Pac-Clad panels finished in Anodic Clear finish help create a dramatic soffit/fascia that highlights the showroom, designed by Chicago-based Valerio, Dewalt, Train Associates. The caulked-joint panel system utilizes a composite material comprising a thermoplastic core bonded to aluminum skins. Petersen, Elk Grove Village, Ill. www.pac-clad.com **CIRCLE 231**





▲ Hospital gown

The facade of a new six-level parking garage for Community Hospital North in Indianapolis is composed of more than 40,000 square feet of Cambridge Architectural metal fabric in the Scale pattern. The system's 60' x 15'–wide panels offer ventilation, fall protection, and security. At night, the structure's exterior lighting illuminates the mesh (above). Cambridge Architectural, Cambridge, Md. www.cambridgearchitectural.com **CIRCLE 232**

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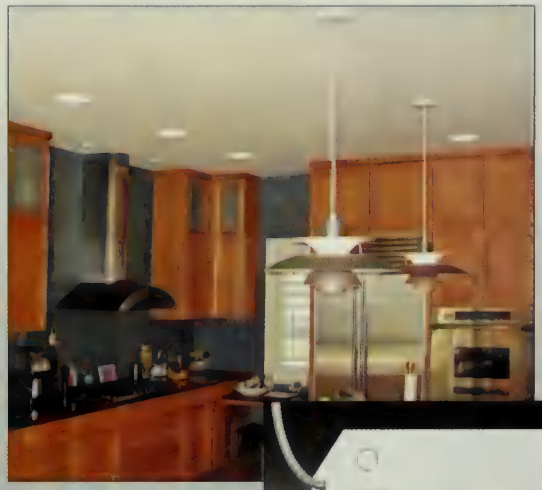
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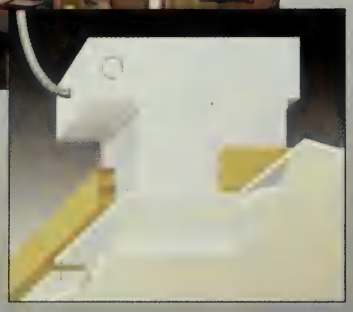
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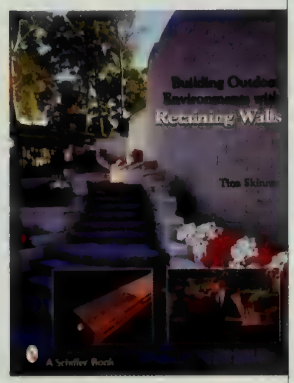
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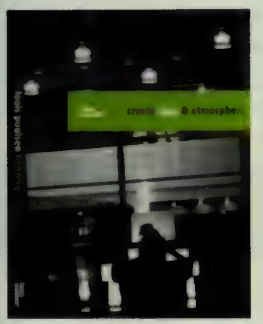
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Product Resources: Literature

► Retaining wall idea book



Ideal for landscape contractors, designers, and architects, *Building Outdoor Environments with Retaining Walls* is a new, 128-page installation and idea book on segmental retaining walls available from Versa-Lok. The book features a detailed guide for installing retaining walls, followed by images of hundreds of completed Versa-Lok installations in backyards, front entryways, outdoor kitchens, patios, gardens, and walkways. Versa-Lok, Oakdale, Minn. www.versa-lok.com **CIRCLE 233**



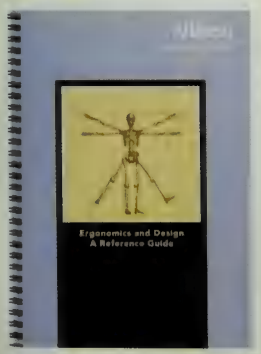
◄ Latest lighting edition

Released to the industry every four years, Louis Poulsen's latest hardcover catalog includes more than 400 pages, 700 professional images, 21 new products, and 16 new product variants, in addition to the classic industry favorites designed by renowned Danish conceptualists Poul Henningsen, Verner Panton, and Arne Jacobsen. Louis Poulsen Lighting, Ft. Lauderdale, Fla. www.louispoulsen.com **CIRCLE 234**

► Fine lighting catalog



New Metal Crafts has released a 65-page catalog featuring an extensive line of chandeliers, sconces, lanterns, and wall fixtures for residential and commercial projects. The literature features large photos and detailed descriptions of New Metal Craft's lighting collection. In addition to its standing lines, the company also provides custom-designed lighting manufactured in its own facility, as well as select imports, antiques, and vintage lighting. New Metal Crafts, Chicago. www.newmetalcrafts.com **CIRCLE 235**



◄ Keep employees in better shape

Ergonomics and Design: A Reference Guide is a new ergonomics handbook available from Allsteel. Intended to help facility managers, designers, and office-furniture decision makers understand how ergonomic theory can guide them in choosing the correct product for their needs, the handbook includes information on anthropometric measurements, common workplace posture and motion analysis, office furniture guidelines for optimum fit and function, universal design, and more. Allsteel, Muscatine, Iowa. www.allsteeloffice.com **CIRCLE 236**

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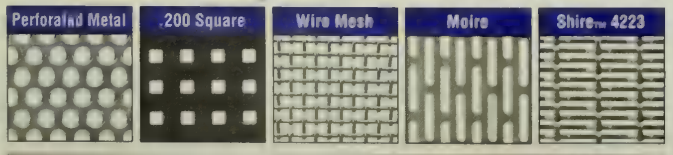
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Product Resources: On the Web

► www.neo-metro.com



The site for this L.A.-based manufacturer of stainless-steel bathroom fixtures includes product slide shows, one-click tech and spec download, a 2007 price guide, and an easy-to-navigate bar of icons to guide visitors to sections on urinals, toilets, tubs, and tiles. A thorough FAQ section offers helpful answers to common questions such as, "Isn't the stainless-steel toilet seat cold?" The response from Neo-Metro is no, since it is actually constructed of chrome-plated ABS plastic instead of stainless steel.



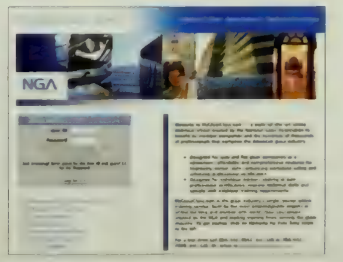
◄ www.design21sdn.com

Design 21: Social Design Network is an online community site that "explores the connection between design and society." Launched by UNESCO and Felissimo, the site includes a section for competitions (Design It), ideas and resources (Share It), a forum (Plaza), and a place to purchase a specially designed ring for members (Wear It). The site's look could use more "design," but it is easy to navigate.

► www.sabaxter.com



The site for SA Baxter, a designer and producer of high-end residential architectural hardware, is a visual treat—an opening product slide show reveals the jewelerylike detailing you could find on display at Tiffany. Rollovers on product categories focusing on windows, doors, and cabinets activate pull-down menus of specific product types within each category.



◄ www.myglassclass.com

The National Glass Association offers a new course available through its online education and training tool for the glass industry. The new course features definitions, applications, technical information, and market data about switchable "smart glass" technologies. Access to the "Library" is available to all enrolled students as well as to the general public via a Guest ID at this informative site.

For more information, circle item numbers on Reader Service Card or go to archrecord.construction.com, under Products, then Reader Service.



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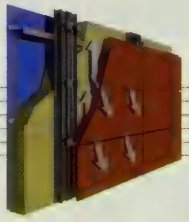
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Dates & Events

New and Upcoming Exhibitions

Uncontested: Alumni Competition
Los Angeles
February 9–March 16, 2007
This exhibition features national and international architectural competition entries from the UCLA Department of Architecture and Urban Design alumni from 1968 to the present. The competition offers architects the opportunity to explore new ideas and concepts, and some of the most ambitious and dynamic work is generated from competition entries. At UCLA Perloff Gallery. Call 310/267-4704 or visit www.aud.ucla.edu.

Shelter or Playground?
Los Angeles
February 12–24, 2007
Work from Peter Zellner's seminar, "Residential Architecture in Southern California 1905–2005" will be on display in SCI-Arc's North Lobby Gallery. Call 213/356-5329 or visit www.sciarc.edu.

Zaha Hadid Architects and Eric Owen Moss Architects: Adventures in Kazakhstan
Los Angeles
February 23–April 22, 2007
This exhibition features the design entries of London-based Zaha Hadid Architects and Los Angeles–based Eric Owen Moss Architects for an invitational competition for Republic Square in Almaty, Kazakhstan, which consisted of a multi-use building complex on a prime lot with a five-star hotel, luxury residences, and office spaces. At SCI-Arc Library. Call 213/356-5329 or visit www.sciarc.edu.

Grounded: Eisenman Architects
Los Angeles
February 23–April 22, 2007
An installation by world-renowned Eisenman Architects. Most of Peter Eisenman's work has sought to overcome the traditional idea of architecture as a figure on a ground by "figuring the ground": making ground a figure. Some projects carve into the ground, while others manipulate the surface to create a figured ground. This installation considers Eisenman's "groundwork" from one of the earliest projects, the Cannaregio Town Square in Venice (1978), to the Wexner Center for the Arts in Columbus, Ohio (1989) and the City of Culture of Galicia, in Santiago de Compostela, Spain (currently under construction). At SCI-Arc Gallery. Call 213/356-5329 or visit www.sciarc.edu.

2007 2x8: Vert
Los Angeles
March 19–April 26, 2007
The AIA/L.A.'s annual *2x8* student exhibition, this year called *Vert*, will take place at the Pacific Design Center and coincide with WESTWEEK 2007, an internationally recognized trade event that welcomes thousands of design professionals each spring to West Los Angeles.
Call 213/356-5329 or visit www.sciarc.edu.

AIA150
NY 150+: A Timeline: Ideas, Civic Institutions, and Futures
New York City
April 9–June 23, 2007



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Dates & Events

To commemorate the 150th anniversary of the founding of the American Institute of Architects in New York City, the AIA New York Chapter will feature an exhibition charting the transformation of the city and the profession from 1857 through the present and the future. Genetic lines tracing the founding of the institute will intersect with various democratic and social movements and the architecture of New York's civic structures. Fifteen buildings and public spaces will be presented with a factual overview and commentary by architects, critics, journalists, authors, and others to illustrate the ideas that define the city's history as well as its future. A preamble will frame the social, cultural, and historical discourse, giving special emphasis to the directions of architecture in the city as imagined within a puritan pastoral democracy. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

Open House: Architecture and Technology for Intelligent Living
Los Angeles
April 14–July 1, 2007
The exhibition includes nearly 100 teams of emerging designers whose work focuses on technology and domestic architecture. The teams were invited to submit new designs that offer real-life solutions that incorporate the concepts of connectivity, well-being, flexibility, and sustainability. At Art Center College of Design's South Campus Wind Tunnel. Call 626/396-2380 or visit www.artcenter.edu.

Butabu: Adobe Architecture of West Africa: Photographs by James Morris
April 22–July 15, 2007
For centuries, complex adobe structures, many of them quite massive, have been built in the Sahal region of western Africa—Mali, Niger, Nigeria, Togo, Benin, Ghana, and Burkina Faso. Made of earth mixed with water, these ephemeral buildings display a remarkable diversity of form, human ingenuity, and originality. In Butabu: Adobe Architecture of West Africa, large-scale photographs by British photographer James Morris offer a stunning visual survey of these structures, from monumental mosques to family homes. The show is being held at the Fowler Museum at UCLA. For additional information, call 310/825-4361 or visit www.fowler.ucla.edu.

Ongoing Exhibitions

AIA150

Project Showcase:
The New York Times Building
New York City
Through February 17, 2007
The Center for Architecture presents a preview of the new, 52-story New York Times Building currently being constructed. Models, drawings, and material samples describe the innovation and design process, with photography by Annie Leibovitz documenting the urban context of this spectacular new skyscraper. At Street Gallery, Public Resource Center. Visit www.aiany.org.

Entropy: The Art in Architects
Culver City, Calif.
Through February 24, 2007
This multimedia exhibition includes works by current and former SCI-Arc faculty and alumni such as SCI-Arc director Eric Owen Moss, former SCI-Arc directors Neil Denari and Michael Rotondi, and founding SCI-Arc faculty member Thom Mayne. Curated by Los Angeles architect Javier Gomez Alvarez-Tostado, and David Jeno, Principal, Perez Design Group, the show's title refers to a term used in physics for the principles of thermodynamics, of systems passing from a state of instability to one in a higher stationary order. The exhibition applies this principle to the process or system of the architect—more specifically, how the artistic endeavor of gathering self-information; finding architecture; and converting space into tension, order, scale, environment, and stability through structure develops a state of higher rule. At Koplin Del Rio Gallery. Call 310/836-9055 or visit www.koplindelrio.com.

Envisioning Architecture:
Drawings by Martin Wolf
Urbana-Champaign, Ill.
Through February 24, 2007
Principal in charge of design at Solomon Cordwell Buenz, Martin Wolf, uses freehand sketches throughout his design process. Over 150 drawings will be on view. At the University of Illinois at Urbana-Champaign ISpace Gallery. Call 312/587-9976 or visit www.uiuc.edu.

OMA in Beijing: China Central Television Headquarters by Ole Scheeren and Rem Koolhaas
New York City
Through February 26, 2007

Scheduled to open for the Beijing Olympics in 2008, the complex comprises three buildings and a media park situated on a 20-hectare (49 acre) site east of Beijing's Forbidden City. The international partnership Office for Metropolitan Architecture (OMA) won the competition for its design in 2002, and the project broke ground in 2004, with OMA partner Ole Scheeren leading its design and execution from Beijing. The exhibition explores the project through an array of graphics, renderings, and explanatory texts, as well as large- and small-scale models. A selection of architectural drawings from New York's Museum of Modern Art collection will situate the project as one of the most visionary built works in the history of modern architecture. At MoMA. For more information, call 212/708-9400 or visit www.moma.org.

AIA150

Going Public 2: City Snapshot(s) and Case Studies of the Mayor's Design and Construction Excellence Initiative
New York City
Through March 3, 2007
A two-part exhibition celebrating public projects in New York City. City Snapshot(s) is the second installation of the Center for Architecture's inaugural exhibition showcasing recent and newly proposed public architecture, art, engineering, and landscape projects submitted by open call. Case Studies of the Mayor's Design and Construction Excellence Initiative will focus on seven projects and look at how the N.Y.C. Department of Design and Construction is redefining what public architecture can be in the 21st century. Together, the two installations document the scope, quality, and diversity of public work in New York City. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

The Last Four Miles
Chicago
Through March 10, 2007
Chicago's 26-mile lakefront is world-renowned for its beauty, and unlike many urban waterfronts, Chicago's shores are mainly public park land, accessible to everyone. However, two stretches of the shoreline (totaling approximately 4 miles) on Chicago's South Side remain in private and quasi-governmental hands. This exhibition, presented in conjunction with Chicago's Friends of the Parks, unveils the plans for redeveloping this land to complete the shoreline park system from Evanston to the Indiana border. Call 312/922-3432 or visit www.architecture.org.

Some Assembly Required
Los Angeles
Through March 13, 2007
For this innovative new show, architects and home buyers unite to support a variety of modern modular dwellings that refute the commonly accepted image of "prefab" homes as cheap, cookie-cutter structures. This exhibition presents various approaches to prefab houses: those built with a kit and an instruction manual or the diminutive, one-room version. At the Pacific Design Center. For more information, call 310/657-0800 or visit www.pacificdesigncenter.com.

Modernism in American Silver: 20th-Century Design
Miami Beach, Fla.
Through March 25, 2007
This show charts the stylistic design history of modern American production silver while exploring the economic and cultural factors that influenced silver design, manufacture, and marketing across more than seven decades. At the Wolfsonian-FIU. For more information, call 305/535-1001 or visit www.wolfsonian.org.

Prairie Skyscraper: Frank Lloyd Wright's Price Tower
Chicago
Through May 4, 2007
The Price Tower Arts Center in Bartlesville, Oklahoma, has the distinction of being the only fully realized skyscraper Frank Lloyd Wright ever designed. Built in 1956 and inspired by a tree, at 19 stories tall, the building transformed the flat prairie on which it was built, altering the horizon with Wright's bold architectural statement. This exhibition celebrates the 50th anniversary of this milestone in American architecture and features drawings, photographs, building components, and some of the original furnishings designed by the architect. Call 312/922-3432 or visit www.architecture.org.

Open House: Architecture and Technology for Intelligent Living
Pasadena, Calif.
Through July 1, 2007
Open House will offer diverse and captivating glimpses into the house of the future as a place for new spatial experiences, systems of sustainability, and sensory enhancements through recent technologies and material developments. The exhibition will feature specially commissioned "intelligent houses" by 10 teams of emerging architects and designers from the United States, Europe, Australia, Asia, and Mexico. In addition, Open House will investigate the rich history of the idea of the "house of the future" and concepts of



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Dates & Events

future living, placing the new commissions in both a contemporary and historical context. The show will be held at the Art Center College of Design's South Campus in Pasadena, California. For more information, you can call 626/396-2200 or visit www.artcenter.edu.

The 2006 National Design Triennial: Design Life Now
New York City
Through July 29, 2007
Inaugurated in 2000, the triennial seeks out and presents the most innovative American designs from the prior three years in a variety of fields, including product design, architecture, furniture, film, graphics, new technologies, animation, science, medicine, and fashion. On view throughout the museum campus will be the work of 87 designers and firms, ranging from established design leaders such as Apple Computer, architect Santiago Calatrava, and Nike to emerging designers like Joshua Davis, Jason Miller, and David Wiseman. At the Cooper-Hewitt National Design Museum. For more information, call 212/849-8400 or visit www.ndm.si.edu.

Lectures, Conferences, and Symposia

AIA150

A New Architecture for a New Education: Symposium
New York City
February 3, 2007
This symposium will bring together school administrators, educators, and architects to discuss what is new in educational practice and how this translates into the design of school buildings. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

Lecture: The Archaeology of Tomorrow: Architecture and the Spirit of Place
Washington, D.C.
February 5, 2007
In his three decades as an architect, author, educator, and philosopher, Travis Price, AIA, has developed an architecture informed by ecology and mythology that restores spirit of place to modern design. His projects worldwide, including the world's largest solar-powered building (the Tennessee Valley Authority's one-million-square-foot complex) and his design/build expeditions that include a floating house on the Amazon and a star-gazing temple at Machu Picchu, suggest alternatives to homogenization in the American landscape and around the globe. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Lecture with Mirko Zardini
Los Angeles
February 5, 2007
Mirko Zardini is an architect based in Montreal and Milan whose research, writings, and design projects engage contemporary architecture, its transformations, and its relationship with the city and the landscape. At Perloff Hall, UCLA. Call 310/267-4704 or visit www.aud.ucla.edu.

Medieval and Baroque Precedents in European and American Urban Capital Cities
New York City
February 6, 2007
Fourteenth Street in Manhattan is the divide between a rationally planned streetscape to the north and an organic maze of medieval streets to the south. This course will examine the evolution of both types of urban planning in European and American urban capitals in order to understand the history and principals of New York City's development, as well as to point out the innovations and differences that Gotham has to offer. At the Center for Architecture. Call 212/935-2075 or visit www.aiany.org.

Lecture: All the World's a Stage: The Performance of Space
Washington, D.C.
February 6, 2007
Architectural space plays a major, yet sometimes overlooked role in movies and stage productions, setting moods, influencing actions, and providing backdrop. Barbara Romer, Ph.D., founder of The New Globe Theater, and John Coyne, theater consultant and set designer, have diverse professional perspectives on the interrelationships between theatrical productions and the physical spaces that accommodate them. Moderated by Martin Moeller, senior vice president at the National Building Museum and curator of the exhibition Reinventing the Globe: A Shakespearean Theater for the 21st Century, the panel will discuss the dynamic intersections between architecture and performance. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

The Challenges of Leadership
Cambridge, Mass.
February 6–9, 2007
This four-day program tackles issues of leadership in practice and within organizations, and challenges participants to develop the vision, influence, self-discipline, and motivation required of successful leaders. This intensive, interactive program is specifically designed for senior executives in real estate, architecture, planning, and related building industries. Visit www.gsd.harvard.edu.

Design Goes Mainstream Lecture Series: Byron Merritt
Houston
February 7, 2007
This lecture series explores why and how design is permeating the mainstream into the products used in everyday life. At Brown Auditorium, the Museum of Fine Arts. Call 713/348-4876 or visit www.rda.rice.edu.

World Water: Perspectives on Fresh Water Resources in the 21st Century
New York City
February 8, 2007
According to the United Nation's 2006 Human Development Report, more than one billion people are currently living without safe water and 2.6 billion without adequate sanitation. To examine contemporary conditions and the impact a restricted water supply system can have on rapidly growing cities in both developed and developing countries, high-profile scholars and scientists come together for a presentation, followed by a panel discussion. At Cooper Union, in The Great Hall. Call 212/353-220 or www.cooper.edu.

AIA150
AIA Grand Strand & Clemson University Charrette
Chesterfield, S.C.
February 8–9, 2007
Visit www.aiasc.org.

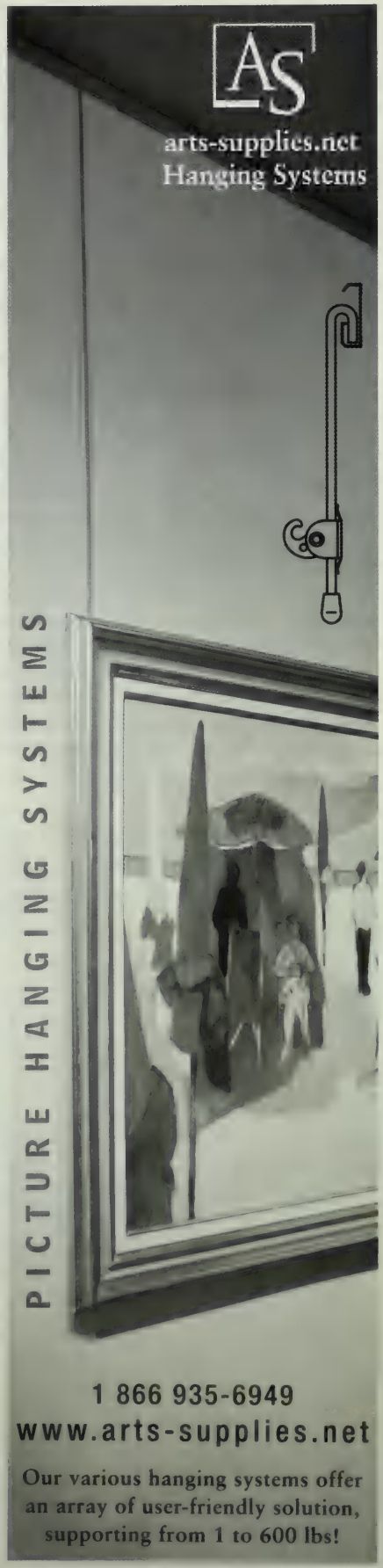
The 28th Annual John Miles Rowlett Lecture: Gensler: The Power of Design
College Station, Tex.
February 9, 2007
A half-day lecture event focusing on the unique role design and culture have played in the 40-year evolution of Gensler, the award-winning, Houston-based architecture, planning, and design firm. At the Annenberg Presidential Conference Center on the Texas A&M University campus. Call 979/847-9357 or visit http://rowlett.tamu.edu.

AIA150
AIA New York Chapter Design Awards 2007: Symposium
New York City
February 12, 2007
This award recognizes excellence in architectural design by New York City architects and for projects designed or built in New York. The purpose is to increase awareness of outstanding architectural design and to honor the architects, clients, and consultants who work together to improve the built environment. Visit www.aiany.org/designawards.

Chicago's Green Permit Program
Chicago
February 13, 2007
As part of the Sustainable Architecture Lunchtime Lecture Series, Erik Olsen, Green Projects Administrator, Chicago Department of Construction and Permits, will speak about the basics of the Green Permit Program of the Department of Construction and Permits and see what projects are under way in Chicago. At the John Buck Company Lecture Hall Gallery, ArchiCenter. Call 312/922-3432 or visit www.architecture.org.

AIA150
Speaker Series: Re-establishing Connections to Our Waterways
Minneapolis
February 13 and March 13, 2007
Celebrate the AIA's 150 years by attending AIA Northern's second and third of the three-part series addressing the role our waterways play in the area. Community members, architects, planners, and water-resource specialists will share stories of the waterways' history, our current connections, and hopes for our waterways in the future. The events are free and open to the public. At Fitger's Northern Lights Theater. Call 612/338-6763 or visit www.aia-mn.org.

Building for the 21st Century: The Continuing Evolution of Energy-Efficient Facilities at Wal-Mart
Washington, D.C.
February 14, 2007
Wal-Mart , America's largest retailer, has made energy efficiency a high priority and has set several ambitious goals: to be supplied 100 percent by renewable energy; to create zero waste; and to sell products that sustain resources and the environment. Charles Zimmerman, vice president of prototype and new format development for Wal-Mart Stores, has played a key role in this effort and will share examples of Wal-Mart's real-life systems. He'll review the company's efforts in daylight harvesting, heat



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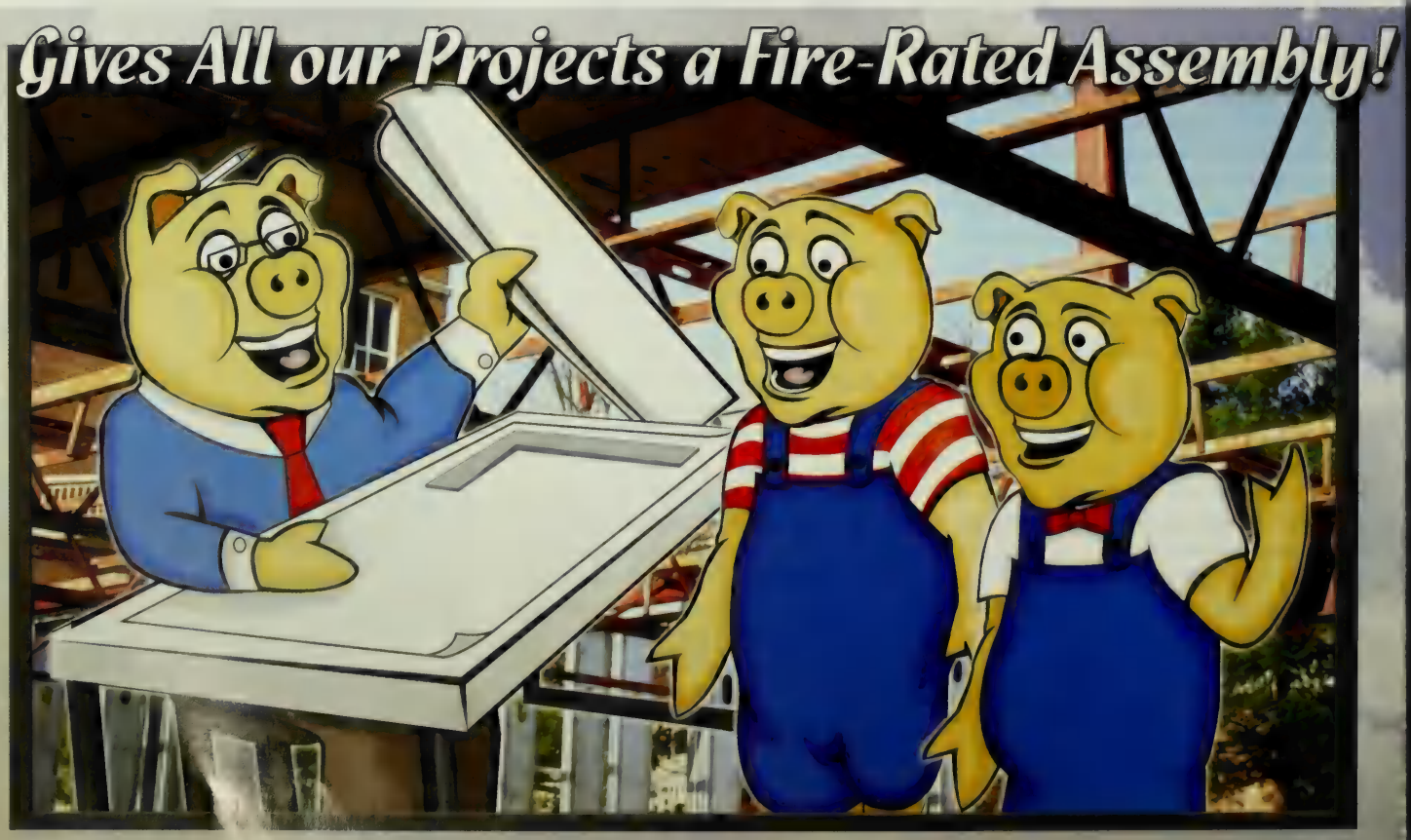
reclamation, LED lighting technology, energy management systems, photovoltaics, and solar walls, as well as provide insights on where some of the newer initiatives are headed. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Eglise St. Germain-des-Pres
Paris
February 15, 2007
Elaine Polley, a graduate of the Sorbonne who holds two master's degrees, in French Literature and in Medieval Studies, will lead this lecture and tour of Paris's oldest church, the 6th-century Eglise St. Germain-des-Pres and its famous chapel, St. Symphorien. Polley, who is currently pursuing her doctorate in Medieval French literature, will emphasize the church's instrumental role during the Middle Ages and its impact on the city and surrounding neighborhood of St. Germain-des-Pres. For more information, Visit www.contexttravel.com.

Downtown Third Thursdays Lecture Series
New York City
February 15, 2007
This series celebrates Lower Manhattan's architectural treasures and history by presenting discussions with best-selling authors and world-renowned experts in thematically connected settings. This month features Mark Kurlansky, author and food historian, in the Marine Room at India House. At One Hanover Square, this landmark 1853 Italian Renaissance–inspired brownstone, designed by Richard Carman, originally housed the Hanover Bank and survives from pre–Civil War New York. For information, visit www.downtownny.com/third.

Canadian Design Research Network (CDRN)
Parametric Modeling and Digital Wood Fabrication Workshop and Symposium
Surrey, B.C.
February 15–24, 2007
The focus of these events is on the integration of parametric modeling and digital fabrication techniques into design, manufacturing, and construction processes. Parametric modeling is an emerging technology that allows designers to interactively investigate multiple design alternatives. In combination with rapid prototyping equipment, it provides a new and innovative approach to design. In addition to the workshop, the symposium events will include panel discussions, lectures, exhibits, industry workshops, and presentations. At the Forest Sciences Center at the University of British Columbia. Call 604/268-7500 or visit www.cdrn.ca/events/wood/.

Global Emergency Teach-In: The 2010 Imperative
New York City
February 20, 2007
The globally broadcast (Webcast) interactive teach-in will bring together the entire academic design community to understand and discuss the implications of global warming and the design community's role in addressing this crisis. Specifically, "The 2010 Imperative," a challenge and strategy for transforming all design education (architecture, planning, engineering, landscape architecture, industrial design, etc.), will be issued to all schools, and participants will be asked to adopt, support, and implement its targets. The teach-in will be broadcast to all professional architecture, planning, engineering and design schools, as well as to others involved in environmental studies, and to offices throughout



North and South America and parts of the E.U. via a live Webcast over the internet. At New York Academy of Sciences, 7 World Trade Center, Main Auditorium. For further information, visit www.2010imperative.org.

Spotlight on Design: Educating the Green Way : The Children's Museum of Pittsburgh
Washington, D.C.
February 22, 2007
The 2004 expansion to the Children's Museum of Pittsburgh is a case study in the successful combination of design excellence and sustainable practices. The 80,000-square-foot project received a Silver LEED rating in 2006, making it the largest sustainable museum in the United States. Additionally, the museum has received a number of prestigious recognitions, including a 2006 National Preservation Honor Award and a 2006 National Honor Award for Architecture from the American Institute of Architects. In a moderated discussion, Jane Werner, director of the Children's Museum of Pittsburgh, and Julie Eizenberg, AIA, principal of the Santa Monica–based firm Koning Eizenberg Architecture, will discuss the successes and challenges of using the museum's mission as a starting point for sustainable design. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

AIA150
AIA Spring Conference 2007
Isle of Palms, S.C.
February 22–24, 2007
During the celebration year of AIA 150, South Carolina Emerging Professionals are welcome to attend and participate in the seminars and events at this conference, which will present recent works by some of the nation's most recognized firms and architects. At the Wild Dunes Resort. Call 803/252-6050 or visit www.aiasc.org.

35th Annual Concrete Sawing & Drilling Association (CSDA) Convention
Maui
February 22–27, 2007
The convention will feature in-depth presentations, roundtables, and workshops that will address many topics relevant to operating small businesses as well as safety concerns and technical problems for concrete sawing and drilling professionals from around the world. At the Westin Maui Resort on Kaanapali Beach. Call 727/577-5004 or visit www.csda.org.

Mixed Greens: Sustainable Skyscrapers Go Global
New York City
February 22, March 15, Apríl 5, and May 8, 2007
A lecture series featuring architects whose work on high-performance high-rises has pioneered the field, setting new standards for environmentally conscious urbanism. At the new New York Academy of Sciences headquarters on the 40th floor of 7 World Trade Center. Call 212/968-1961 or visit www.skyscraper.org.

Fondation Le Corbusier
Paris
February 24, 2007
This tour of Le Corbusier's apartment and two famous works (Villas Jeanneret and Roche) will be guided by docent and architect Michael Herrman. A Fulbright fellow and graduate of Cornell and Princeton, Herrman served on the design team under Jean Nouvel of the recently opened Musée du Quai Branly in Paris. Visit www.contexttravel.com.

Lecture and CityLAB Seminar with David Grahame Shane
Los Angeles
February 26–27, 2007
David Grahame Shane has taught design at the Architectural Association, Bennington College, and Cornell, Rice, and Columbia Universities. He is currently an associate professor of architecture at Columbia's Graduate School of





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Dates & Events

Architecture, Planning and Preservation. At Perloff Hall, UCLA. Call 310/267-4704 or visit www.aud.ucla.edu.

Smart Growth: Lessons Learned from the Clarksburg Town Center Washington, D.C.
February 27, 2007
Amy Presley, Lynn Fantle, and Kim Shiley of the Clarksburg Town Center Advisory Committee will share their perspectives on a highly publicized planned development where the built project was inconsistent with the smart growth plans approved by county officials. The story that unfolded in Clarksburg, Maryland, serves as an example of why residents, planners, and developers need to work in concert throughout the entire development and building process to ensure integrity of design and expectations. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Competitions

Villa Esperanza: A Santa Fe Sustainable Ideas Competition
Deadline: February 5, 2007
The goal of this international competition is to provide a model for social justice and sustainable housing design in Santa Fe, New Mexico. The project focuses on the redesign of an existing low-income-housing project to address issues of urban transit, green design, and affordability. For further information, visit www.santafedesignweek.com.

AIA150
AIA New York Chapter Design Awards 2007
Submission Deadline: February 9, 2007
This award recognizes excellence in architectural design by New York City architects and for projects designed or built in New York. The purpose is to increase awareness of outstanding architectural design and to honor the architects, clients, and consultants who work together to improve the built environment.
Visit www.aiany.org/designawards.

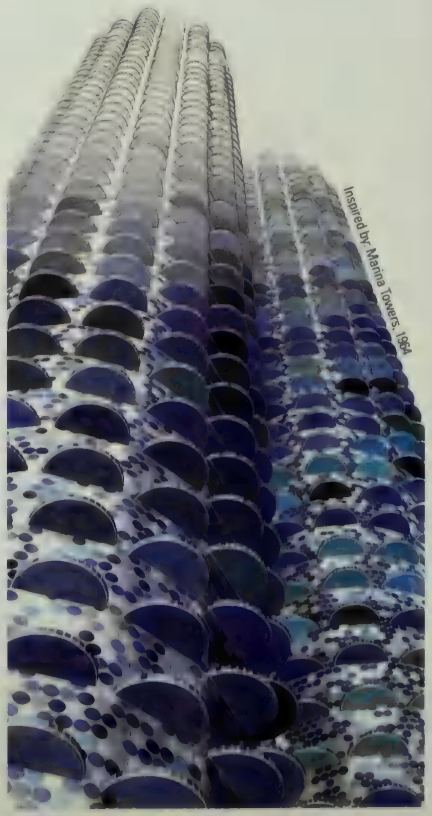
Ceramic Tiles of Italy Design Competition Call For Entries 2007
Deadline: February 9, 2007
The 14th annual Design Competition honors design excellence in projects that feature Italian ceramic tile. North American architects and

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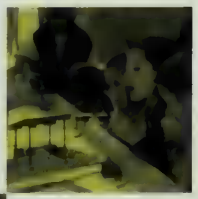
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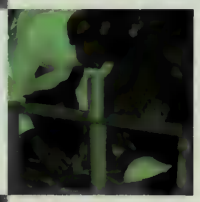
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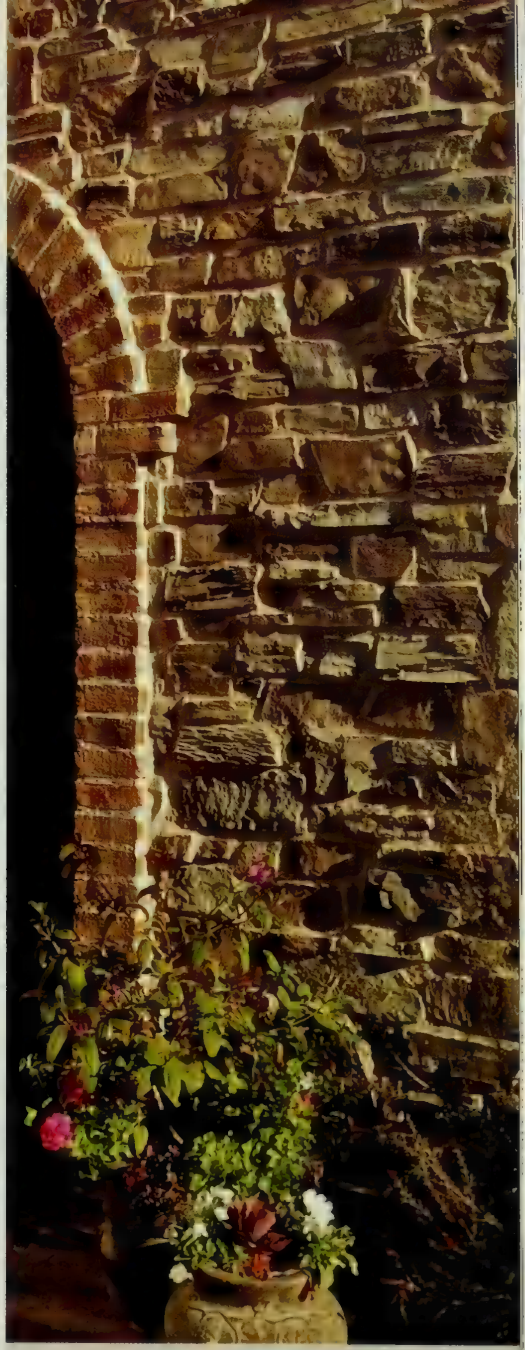
Dates & Events

interior designers are invited to submit residential, commercial, and institutional projects completed between January 2002 and January 2007. Entries may be submitted for domestic and international new construction and renovation projects. For more information, visit www.italytile. com/italytilenew/html/DesignComp2007.asp.

Young Architects Competition: Proof
Deadline: February 12, 2007
Participants in the program are chosen through a portfolio competition that is juried by distinguished architects, artists, and critics, and the Young Architects Committee. The committee, a group selected each year from past participants in the Young Architects Forum, is responsible for developing the program's theme and selecting competition jurors. Open to designers 10 years or less out of school, the competition draws entrants from around North America. Call 212/753-1722 or visit www.archleague.org.

Spectrum and Prism Awards
Deadline: February 23, 2007
The awards seek architectural and design projects representing the most innovative and visionary use of ceramic tile and natural stone. The competitions—Spectrum for tile, Prism for stone—culminate with a presentation ceremony during the Coverings expo and conference, April 17–20, in Chicago. Downloadable versions are available at http://www.coverings.com/spectrum-prism-awards.html. For more information on Coverings 2007 call 703/683-8500 or visit www.coverings.com.

2007 Aurora Awards
Deadline: March 9, 2007
Builders and architects who have demonstrated excellence and creativity when designing hurricane-resistant structures are invited to submit proposals to this design competition recognizing projects in the southeastern United States. Solutia, a manufacturer of polyvinyl butyral (PVB) interlayers for impact-resistant glass, is sponsoring a new category in the competition: The Safe & Secure Award will recognize builders, designers, architects, and other home-building professionals who incorporate—and meet or exceed code requirements for—impact-resistant windows and doors for safety, and who use other design elements that minimize the effects of hurricanes and other disasters on residential structures. For more information, visit www.theauroras.com.



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CALL FOR ENTRIES

ARCHITECTURAL RECORD

Kitchen & Bath Portfolio

The editors of ARCHITECTURAL RECORD are calling for entries for the 2007 KITCHEN & BATH PORTFOLIO. Entry is open to any registered architect who has recently completed an innovative kitchen and/or bath project. Of interest are projects that feature unexpected materials, address unique client needs, or are designed in a manner that allows these utilitarian spaces to be both functional and beautiful.

There is no fee. Submissions should include images (color prints, large-format transparencies, or high-res digital images on CD along with a labeled color printout), a brief project description, and a complete credit and product source list. No slides or e-mailed submissions please. We must receive all materials by Friday, April 6th. Selected entries will be featured in RECORD's July 2007 issue.



Submissions should be mailed to:
Rita Catinella Orrell
ARCHITECTURAL RECORD
Two Penn Plaza, Ninth Floor
New York, NY 10121

If you have any questions, please E-mail Rita Catinella Orrell at rita_catinella@mcgraw-hill.com

Dates & Events

The Odegard Award for Excellence in Rug Design

Deadline: March 15, 2007

Design students of over 150 U.S. colleges and universities are invited to submit original carpet designs. This award will show a new generation of student designers how combining pioneering designs with hand weaving and knotting techniques can invigorate the contemporary market and increase awareness and respect for the legacy of the centuries-old art of textile and carpet weaving. Visit www.odegardinc.com.

Shelter Me

Deadline: June 17, 2007

In the past two years, widespread catastrophic events have called forth large-scale relief efforts throughout both urban and rural areas of the world. Shelter Me challenges designers to present a cost-effective short-term shelter that is affordable, lightweight, strong, and easily deployed. Visit www.design21sdn.com.

Project New Orleans Call for Submissions

Ongoing

Project New Orleans is seeking to compile a record of all architectural and planning proposals created for the post-Katrina rebuilding of New Orleans. Submissions are welcome, both written and graphic, from the architectural to the regional, and from all engaged in thinking about the future of the city in physical terms. Visit www.project-neworleans.org.

E-mail event and competition information two months in advance to elisabeth_broome@mcgraw-hill.com.

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Program title: "Rain-Screen Facades Are More Than Skin Deep," Architectural Record (02/07, page 139). 027EDIT1

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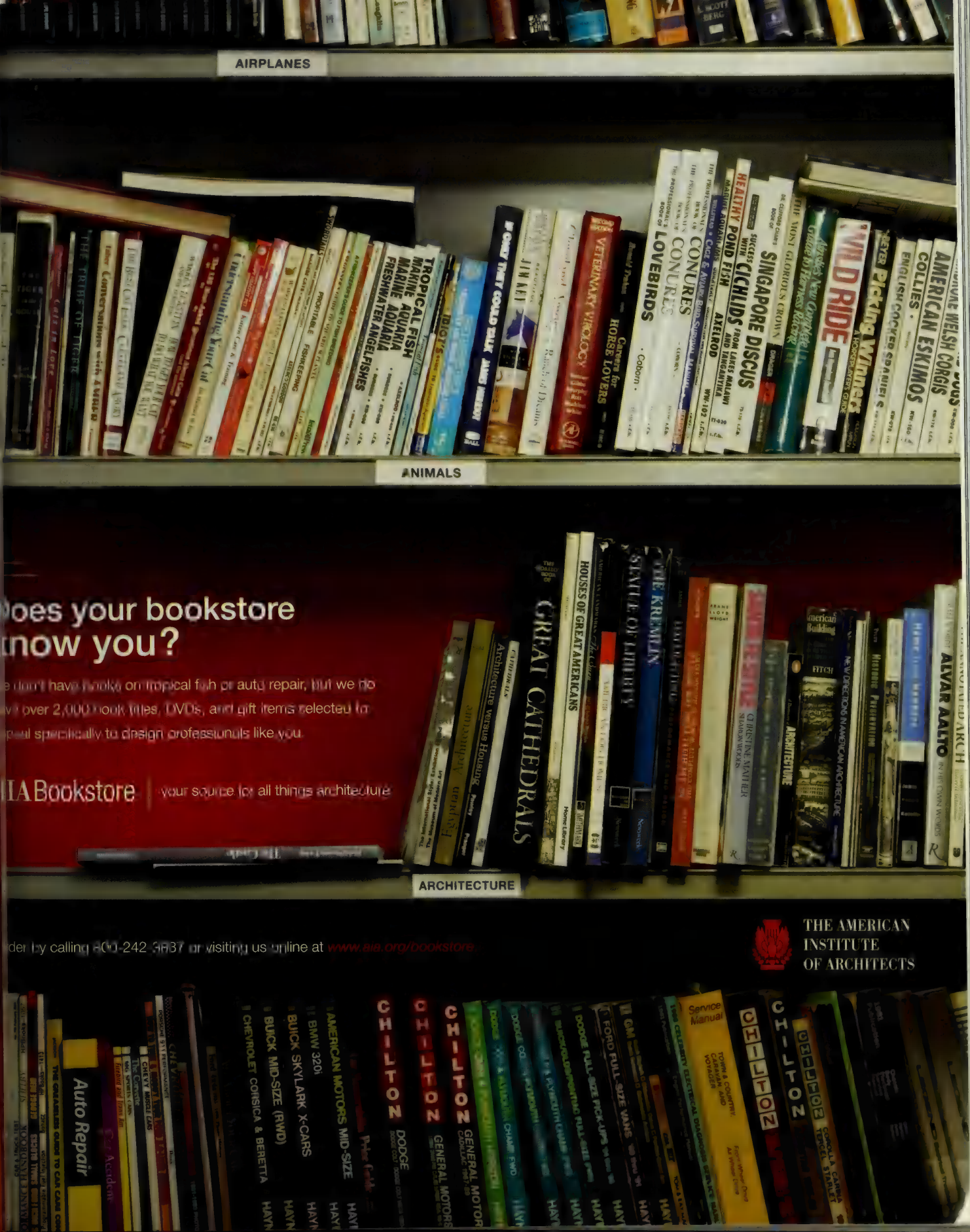
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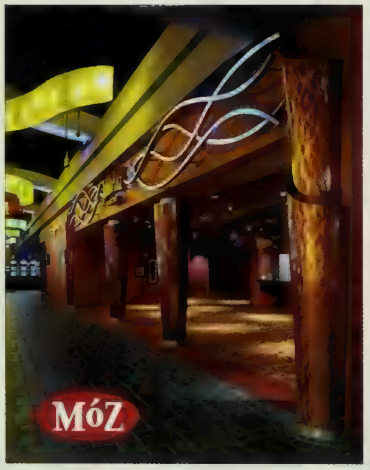
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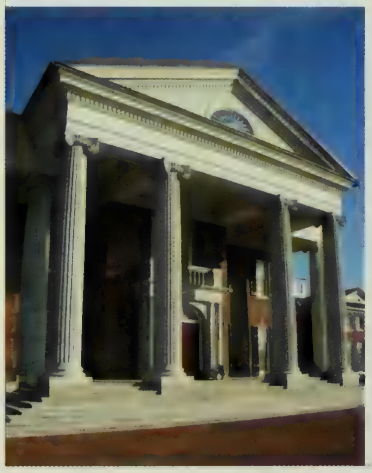
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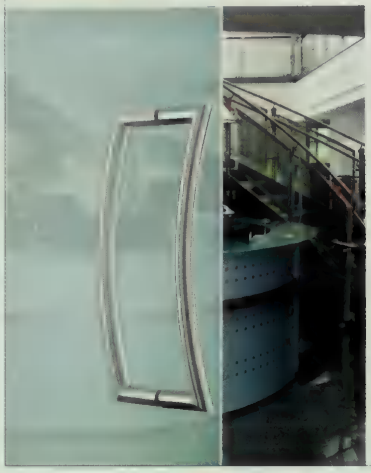
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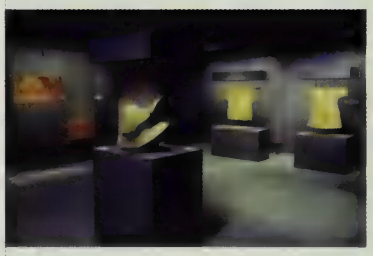
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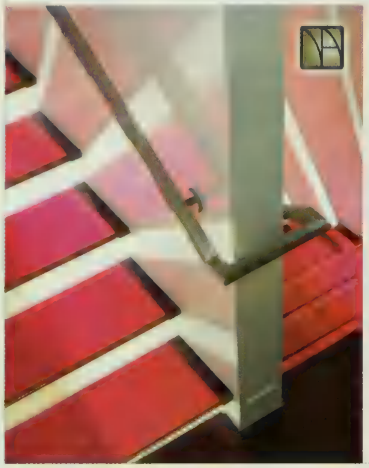
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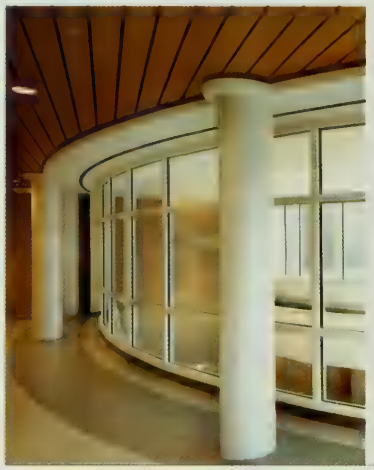
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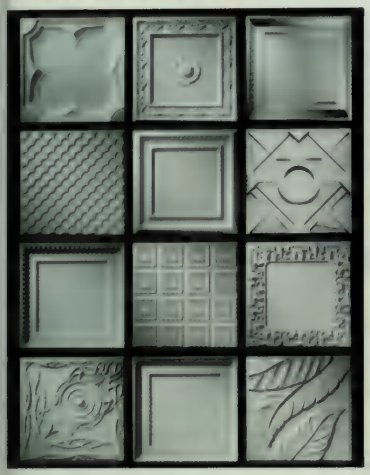
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frpDesign Solutions is a family of decorative wall panels that provides an alternative to traditional wall coverings such as ceramic tile, wood paneling or vinyl wall coverings. Offering both functionality and design, products in the frpDesign Solutions line are made of a moisture-resistant frp panel with a decorative finish that includes myriad colors, patterns, and woodgrains, as well as a tile-look panel. Available with over 500 choices, frpDesign Solutions is easy to install and maintain. For more information, visit Kemlite on the web.

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www.frpdesignsolutions.com

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Green Roof Systems

Homasote Company



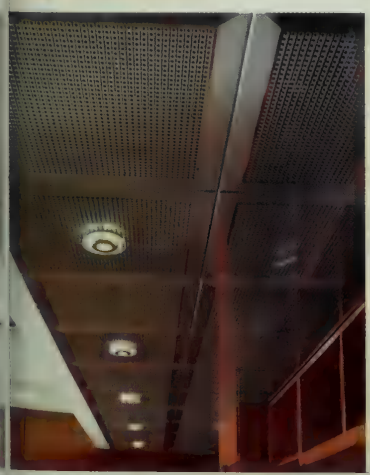
Homasote Company, one of America's leading green building products manufacturers and nailbase roof insulation's originator, has received Factory Mutual approval for N.C.F.R.® Thermasote® on steel roof decks. Use it to specify attractive, residential-looking roofs for multi-family, mixed-use, commercial, medical and other construction. For an alternative green roof system, excellent for conventional and LEED® construction, specify Firestall® Roof Deck with N.C.F.R. Thermasote. Wind uplift tests show these Homasote® systems make code in wind-prone areas.

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Decorative Metal Ceilings

Gage Corporation, Inc.



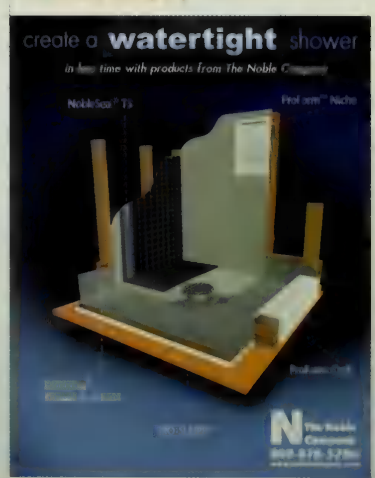
The Gage Corporation International has been designing and manufacturing decorative metal ceilings since 1989. Gage ceilings feature more than 50% post-consumer recycled material and are visually rich, functional, and versatile as a design medium. Custom collaboration is encouraged. Email gage@centurytel.net

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Viva Ceramica



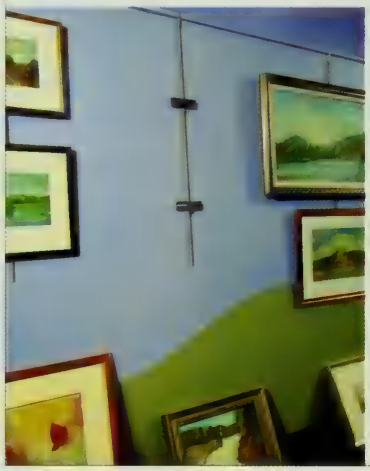
On Viva Ceramica's 1-cm-thick Backstage tiles, available in the 60x90 and 30x90 sizes, they fused 2-m of metal onto the through-bodied porcelain slab. The resulting metalized glaze was then colored before they honed it to reveal totally unexpected metallic effects in green/yellow, red/orange, red/white and blue/black. All this as well as a really natural looking surface all set for the challenges of wear and tear and aging in a completely new way. Ideal for private homes and bathrooms, Backstage can also be used to great effect by interior designers in decorating ultra-modern stores.

www.cerviva.it

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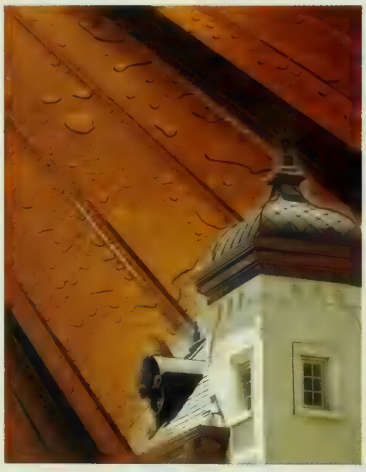
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818-785-0171
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Gyford Productions



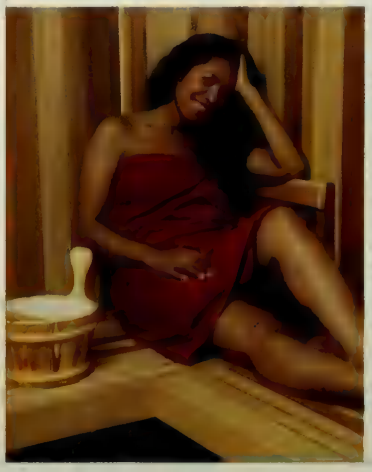
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Sternberg Lighting



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Architectural Ceiling Fans & Lighting

G Squared Art



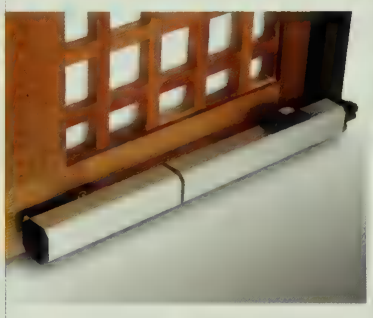
Clean and simple, the Flyte ceiling fan is a GOOD DESIGN Award winner. View brushed nickel with mahogany blades and all white versions on their website. Includes 100W dimmable light and touch control system, remote control available. Cap for non-light use included. Whisper quiet, powerful and beautifully made, this timeless design can be used on 8.5-ft. ceilings or on cathedral ceilings with optional downrods up to 6-ft.-long. Suitable for sloped ceilings up to 29 degrees. Lifetime warranty. To buy high-design architectural fans and lighting please visit G Squared Art's website or call M-F 7 AM - 5 PM PST.

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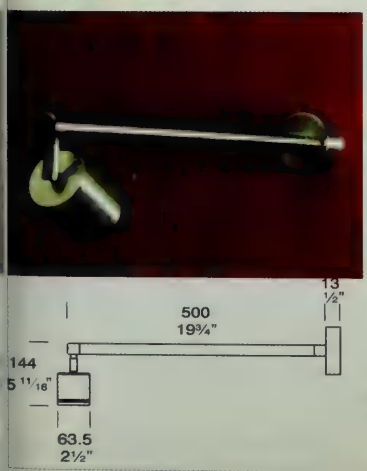
FAAC is the world's largest specialized manufacturer of operators for swing, slide and barrier gate systems. The Model 400 heavy-duty, hydraulic swing gate operator is designed for heavy traffic applications, such as subdivisions and apartments. Its power and reliability also make it ideal for large, ornate gates. Learn more at www.faacusa.com.

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www.faacusa.com

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Stylish Sign Lighting

Hunza Lighting USA



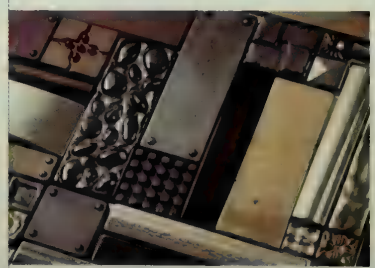
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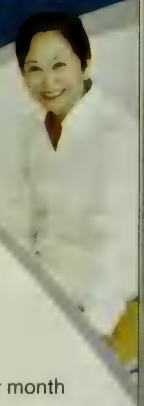


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Greater Helsinki Vision 2050

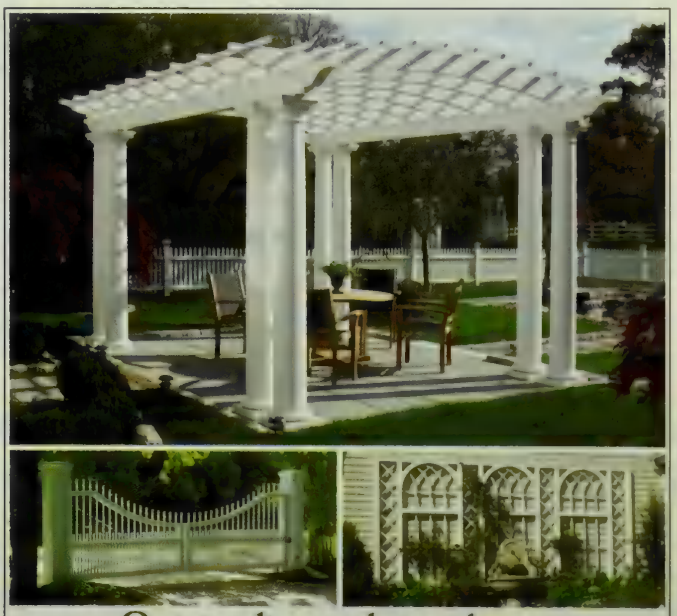
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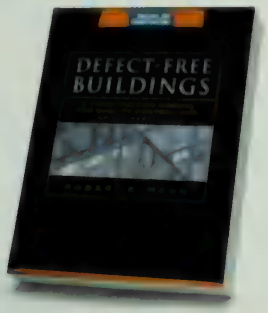
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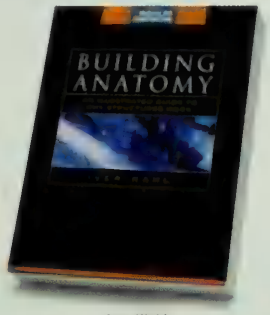
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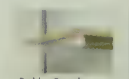
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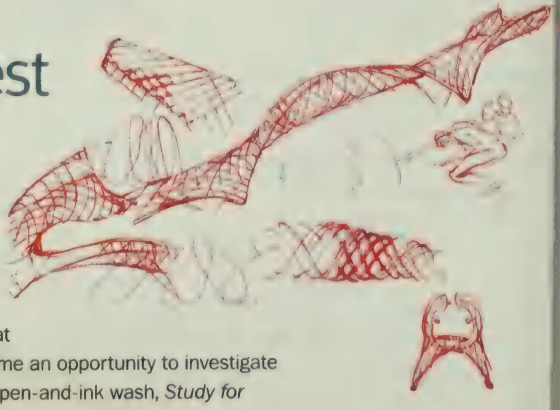
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The Architect's Hand



***Study for Fenchichu Bridge and Station, Alishan, Taiwan*, pen-and-ink wash, 2004 (above); *Geodetic Studies of the Footbridge at Alishan, Taiwan*, red pencil, 2004 (right).**

Jesse Reiser Bridges East and West



After his New York firm, Reiser + Umemoto RUR, won the competition for the Alishan Mountain Tourism Infrastructure in Taiwan in 2003, Jesse Reiser began sketching ideas for various sightseeing components along the mountain railroad's right of way. Two drawings in particular reflect different aspects of the architect's sensibilities. The red pencil drawing, *Geodetic Studies of the Footbridge at Alishan, Taiwan* (right), 8 by 10 inches in size, reveals an interest of Reiser's since his boyhood days in the work of Sir Barnes Wallace, the English engineer who applied geodetic construction principles to aircraft design. "I had looked closely at Wallace's work on the 1930s Vickers Wellington Bomber plane," says Reiser. "The bridge gave me an opportunity to investigate his system." Reiser is also fascinated with the human form, shown both in that sketch and the pen-and-ink wash, *Study for Fenchichu Bridge and Station, Alishan, Taiwan* (above). As Reiser explains, he executed the 6-by-8-inch drawing in preparation for a computer collage rendering of the bridge: "I decided to have some fun by inserting in it a Renaissance-style group of people." Both sketches are striking, not just for their homage to old master drawings, but because they represent an important part of the design process. As Reiser notes, his f[illegible]n employs hand drawings before and during the design process, with much back and forth between the sketch, the computer re[illegible]ering, and the three-dimensional model. *Suzanne Stephens*



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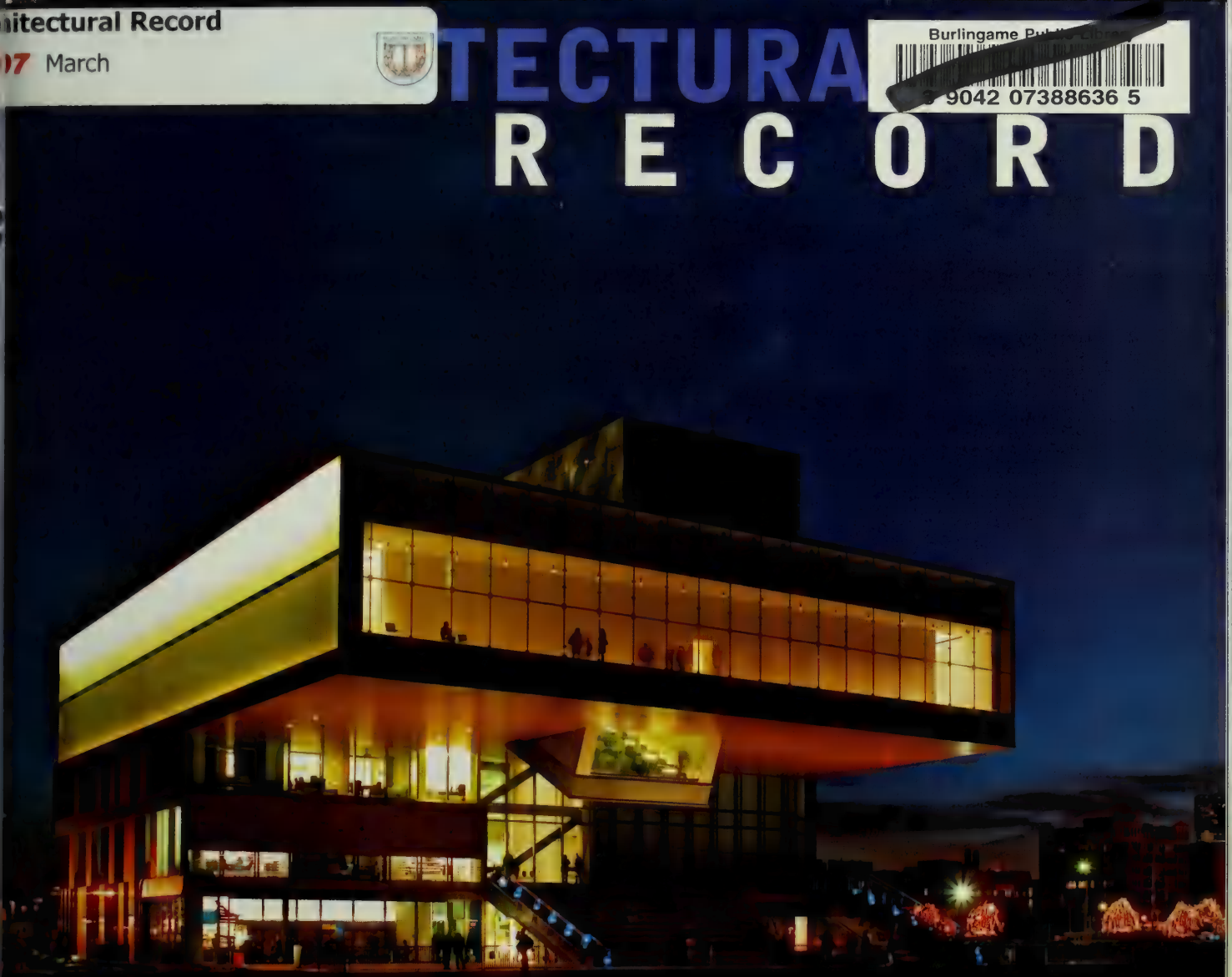


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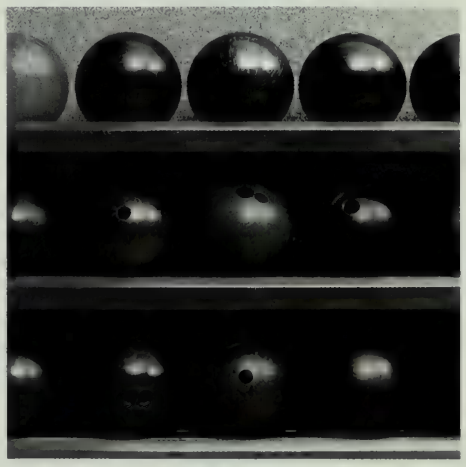
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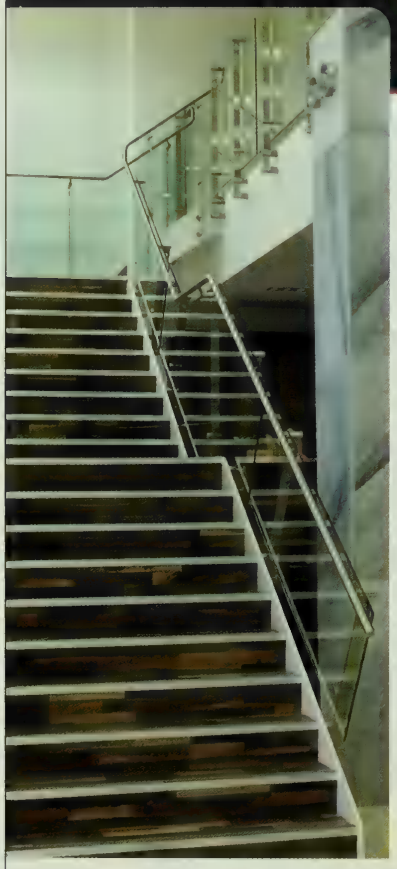
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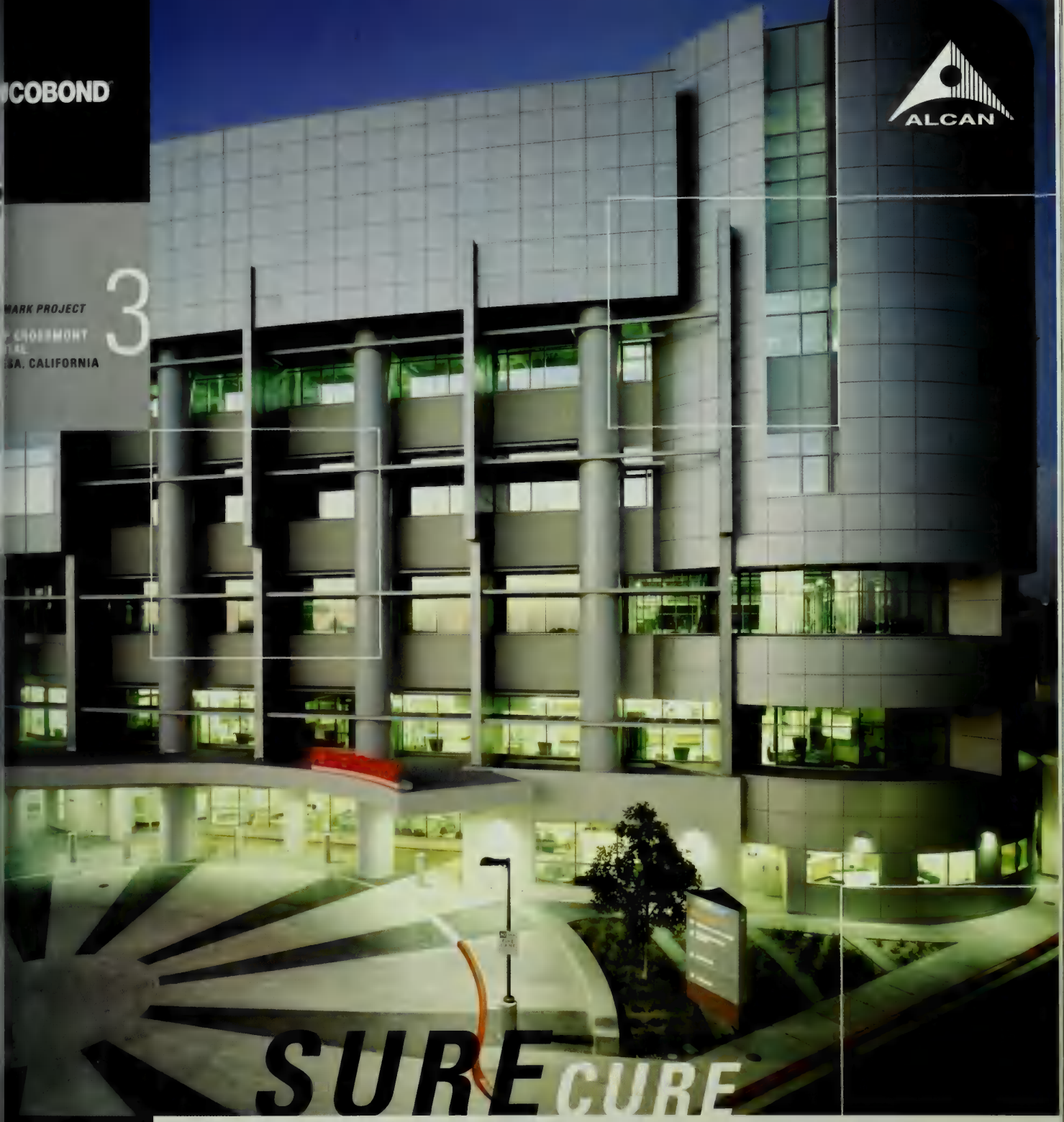
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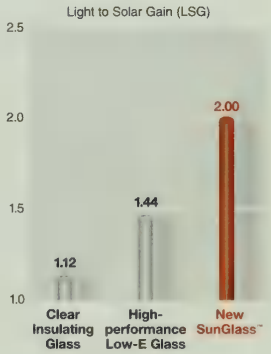
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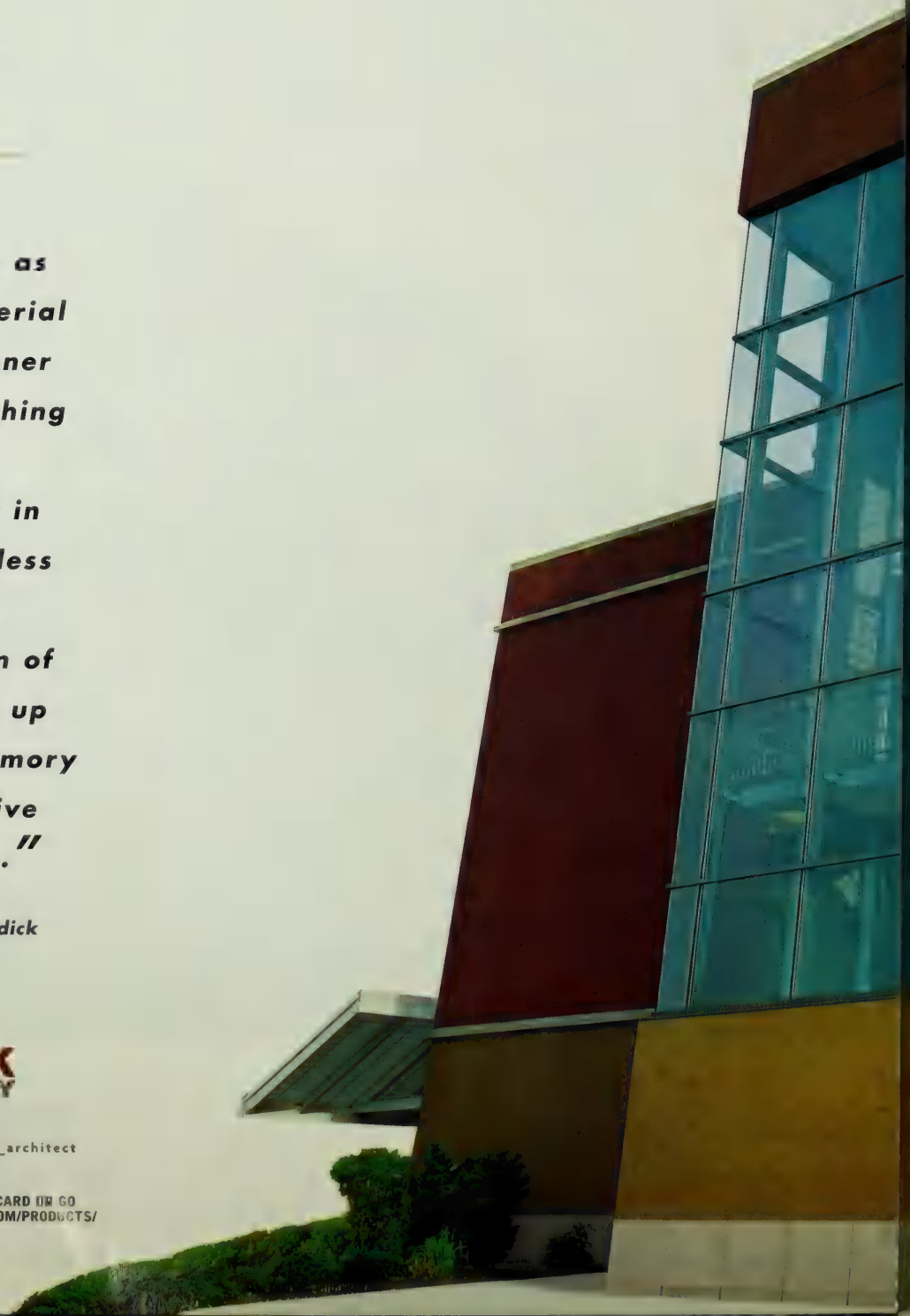
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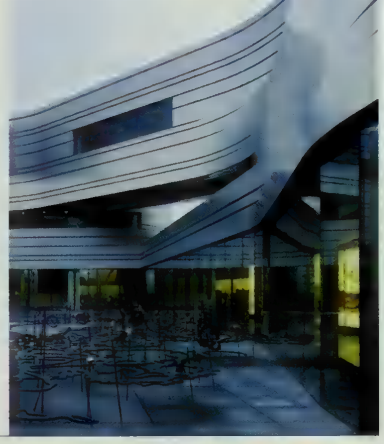
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ARCHITECTURAL RECORD

03.2007



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Expanded coverage of Projects, Building Types Studies, and Web-only special features can be found at **archrecord.construction.com**.

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We now feature some of the top architecture blogs, with multiple posts added throughout the day on projects, products, sustainability, practice matters, and more.



Project Portfolio

From Provincetown, Massachussetts to Eugene, Oregon, U.S. architects are bringing good design to North American cities for a variety of building types, including those shown here: to showcase art, a courthouse, and a medical research facility. Exclusively on the Web, find out the people and products behind each project.



Building Types Study: Government Buildings

In pursuit of green benefits and political symbolism, government agencies embrace glazed curtain walls and skylights–as well as the brise-soleil, as these 10 projects prove, six of which are exclusive to the Web.

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Special Interiors Section

Some designers push the envelope. But here we present a trio of architecture firms that decided to reveal the envelope–creating interiors that draw much of their impact from the integrity of their containers.

Residential: House of the Month

Web exclusive: In this modern home in Northern California by Swatt Architects, a variety of levels, views, and access to the outdoors at every turn make the owners feel both "tucked and perched" at the same time.

Archrecord2

Only on the Web additional photos of projects, both personal and professional, for our two featured architects, Tina Manis in Brooklyn, N.Y., and Scott Rodwin in Boulder, Colo., who manage to run young, successful firms and find time for more than just work.

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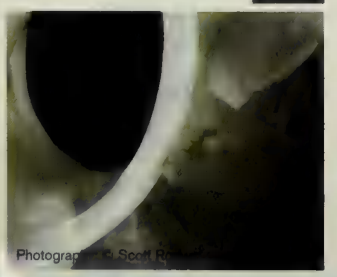
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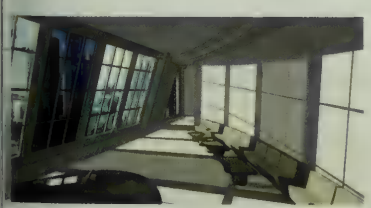
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Move Over, Zaha

Editorial

By Robert Ivy, FAIA

The awards celebration that accompanied the annual Accent on Architecture gala, sponsored by the American Architectural Foundation, brought a powerful trifecta of AIA awards this February: Vince Scully delivered a panegyric honoring the Vietnam Veterans Memorial—Homeric in its linguistic economy, unflinching, moving overall. Edward Larrabee Barnes, who received the Gold Medal posthumously, came vividly to life in the words of Harry Cobb and Toshiko Mori, who described both his wide-ranging contributions to design and to the built environment (think of the Crown Center in Kansas City or the Dallas Museum of Art, in addition to the Haystack Mountain School, in Maine) and his innate personal qualities. The third award came with a sense of urgency.

The AIA Firm of the Year Award recognizes an important shift in the practice of architecture. While in the past, and even today, the individual has made significant contributions to the built environment, the increasing complexity of contemporary society, coupled with growing demands for conversation and collaboration among design professionals, has brought the shared practice into the limelight. We are witnessing both "stars," who garner the lion's share of media attention, and "star firms," who deserve wider appreciation.

Enter Leers Weinzapfel, a firm that is bridging the gap. Since its founding in 1982, this Boston-based partnership has tackled the most difficult kinds of projects, weaving architecture throughout the infrastructure of the team's chosen city and beyond, with uncommon clarity and awareness. In projects as complex as the Tobin Bridge Administration Building, a structure that is literally suspended from a bridge approximately 160 feet off the ground, they have grafted their work into, on, around, and through the social character and physical characteristics that surround each project.

As a result, we think of a Leers Weinzapfel project as a distinctive Modernist addition "in relation" to its surroundings, such as the combined Jewish Philanthropies building, grafted into the fabric of downtown Boston, or University Pavilion at the University of Cincinnati, which forms a part of a growing collection of contemporary structures. Leers Weinzapfel buildings rarely shout for the individual spotlight, instead emitting a positive expression of their own, within the larger canvas.

The firm has brought distinction to courthouses, such as the United States Courthouses in Orlando, Florida, or in Worcester, Massachusetts—a challenging building type, made all the more difficult by the multitude of people affected by it. The list of clients for any courthouse is daunting: the commissioning authority (the federal government or a municipal authority), the occupants of the building (the judges, who sometimes act with supererogatory authority), the public (who may be facing the greatest threat, or tragedy, or hope, of their lives), and the community that surrounds them. Each of the firm's courthouses reflects its users needs, but also shines out above them—something that real architecture can do.

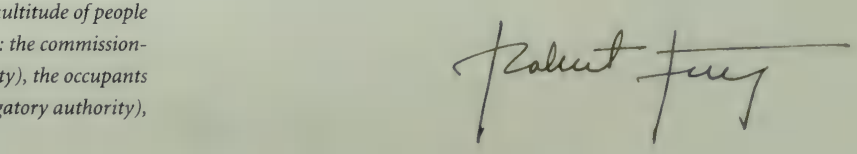
And what is more difficult than adding onto a legacy project, such as it faced at the Harvard University Science Center, originally designed by Josep Luis Sert? Yet the expansion project it conceived and executed complements the original with glowing assurance, all the while interlinking a daunting scientific program, a further example of the firm's high skill in synthesizing and integrating different periods and people.

As architects, the founding partners established a practice that reflected a collaborative spirit, relying on a partner-level dialogue that informed each work. As their numbers and the commissions have increased, and their partners have grown to include architects Joe Pryse and Josiah Stephenson, the model has held. As teachers, the founding principals have continually reached out to new generations of architects, who then enrich their own practices.

Their design process is noteworthy for combining active listening, synthesis, and what could be characterized as a quiet persistence to achieve results in the most trying circumstances. When expediency might dictate an easier route, they repeatedly return to design excellence on the client's behalf.

Finally, one key fact, as yet unmentioned, demands noting: Andrea Leers and Jane Weinzapfel are women. Their elevation as founding principals and inclusion on the wall of the American Institute of Architects on the occasion of its sesquicentennial marks the first time in the organization's first century and a half that a woman, or a woman-owned firm, has had its name inscribed in granite. Their nomination and inclusion is a historic moment, and a signal.

The award goes not to an individual, though our architectural universe has its share of soloists. It goes to a partnership, remarkable for its commitment to excellence and to the people and communities that it serves. The combined practice made it on its own merits; we underscore and cheer its selection. Having cleared the path, there is adequate room on the wall of honor for all architects' contributions for the years to come. We congratulate and celebrate the selection of Leers Weinzapfel, the 2007 Firm of the Year. Move over, Zaha Hadid!



Letters

All for small

I salute you for inaugurating your new serial feature on small projects ["Bantam Weight Champions," February 2007, page 74]. My first project, a small restaurant with an $11,000 construction budget, was published in ARCHITECTURAL RECORD in 1979 and launched my career. Over the past 30 years, we have designed large and small projects and find joy in doing both.
—James Oleg Kruhly, FAIA
Philadelphia

Stop the show

I was most irritated by the propagandist positivism of the news item "In Beirut, the show pauses, then goes on" [December 2006, page 24]. In the article, I heard echoes of real estate developer Solidere's own publications. I expected the piece to have at least some critical comment on the work being realized in the city by the "design-luminaries." Actually, what I really wanted to read about was how the work is being packaged, interpreted, and built, not to mention all the controversy surrounding Solidere's competitions and commissions. But what irritated me the most was the repetition of empty clichés that befit a politician on a reelection campaign rather than a critical commentary on the challenges of construction in Beirut.
—Nadim Bayeh
Beirut

Brooklyn challenge

Mr. Gehry's recent work gives me pause [Record News, "Green light for Gehry in Brooklyn," February 2007, page 30]. His approach to his projects in the past decade or so has been characterized by loosely wrapping a programmatic massing with a collection of complex curved planes. Some of this work, such as the Bilbao museum, previously convincingly despite its nature as appliqué. But when imposed on the recent IAC/InterActiveCorp headquarters in Manhattan, at least as seen from the site limits, the warped surfaces—which now must achieve closure and deal with a grid of planar glazing—simply appear forced. "Forced" is an adjective that also seems apropos to "Fred and Ginger" and the work at MIT, and leads one to fear that the starchitect is out of his depth given the massive scale and urbanistic issues at play in Brooklyn.
—Kenneth M. Moffett, AIA
Knoxville, Tenn.

The tie that binds

The review of the *Skin + Bones* exhibition at the Museum of Contemporary Art, Los Angeles, "Dressing up Fashion Dressing Down Architecture" [January 2007, page 47] was one of the most upsetting articles I have read lately. It was upsetting not only because I thought the exhibition was absolutely amazing, inspiring, and well presented, but because the writer, Russell Fortmeyer, brings the opinion of "many good consumers" who think that if you put architecture next to product design, furniture design, and fashion, it is actually degrading the profession. The arrogance of thinking that architecture is better off standing by itself in order to "strike a serious tone" shows how little Fortmeyer understands design. Good design is open to other disciplines. More than that, good design is influenced by its surroundings, including our culture, thereby enabling people to relate to and appreciate it. The terms "shelter," "geometry," and "creative process," which Fortmeyer thinks to be so generic are the basic terms in both professions that were so beautifully used as threads to sew architecture and fashion together.
—Maya Bavineau
Los Angeles

Big on mini

When I saw the cover line "Residential Section: Mini Houses" on the January 2007 issue, I was excited to read on. I was disappointed, however, to discover that the section was not about real houses, but rather play houses. One of the buildings was not even a house, but a pool pavilion. There is a vast, unmet need for well-designed modest homes in America. Are there architects facing this daunting challenge? Certainly. Now let's see ARCHITECTURAL RECORD pick up the torch and devote more of its pages to highlighting their inspiring work.
—Ross Chapin, AIA
Langley, Wash.

Titillation is not enough

The distributed nervous system and actuators that architect Michael Fox devised for his installation [Record News, "Space invaders: Los Angeles installation inflates, titillates," February 2007, page 25] can be understood as a piece of electronic art, but the implications are larger and more relevant to architects than your reporting lets on. An increasing number of architects are working with those embedded control technologies, aiming at collaborations in the new field of actively responsive architecture. Please investigate and report on those ramifications, rather than leaving us with the titillation.

A prescient and valuable connection to be made in that same issue of ARCHITECTURAL RECORD would have involved questioning Diller Scofidio + Renfro about their long record of working with similar technologies ["Rain Screen Facades Are More Than Skin Deep," February 2007, page 139]. Did they consider pressing that technology into service in the building technologies of their new Institute of Contemporary Art in Boston? Have their engineers for the building, Simpson, Gumpertz & Hager, ever incorporated similar technologies? Could a rain shield facade system with compartmentalized cavities benefit from the intelligent pneumatic technologies being pioneered by Michael Fox?

As a magazine with an otherwise probing and ethical approach to the responsibilities architecture has to develop, I expect ARCHITECTURAL RECORD, with its Continuing Education articles, to turn my attention toward important future technologies.
—Anders Nereim
Chicago

Project U.F.O.

The cover of Record's January 2007 issue claims that "Libeskind Lands in Downtown Denver." At least a hundred U.S. cities should be wary of a similar airborne invasion. Given our present state of declining resources, it is surprising that such willful and wasteful architecture continues to receive favorable review.
—James A. Gresham, FAIA
Tucson

Where were they?

The comment "where was the Paul Rudolph Foundation when it mattered?" [Record News online, January 2007] is right on the money. Where were they? Will the Micheals House become the Penn Station of suburban Connecticut? Will this ultimately save all those houses by Breuer, Noyes, Johansson, et al?
—Peter Forbes, FAIA
Florence, Italy

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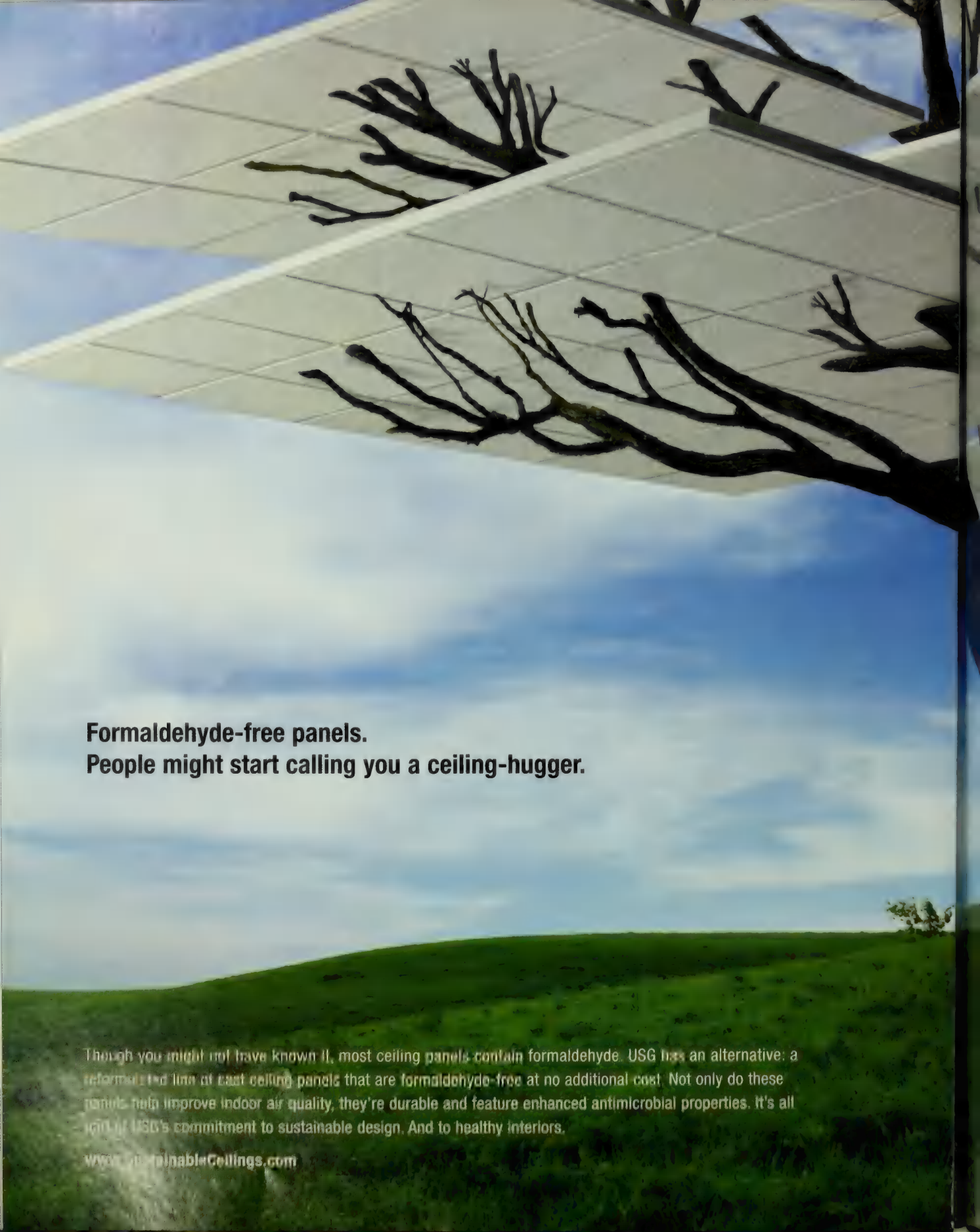
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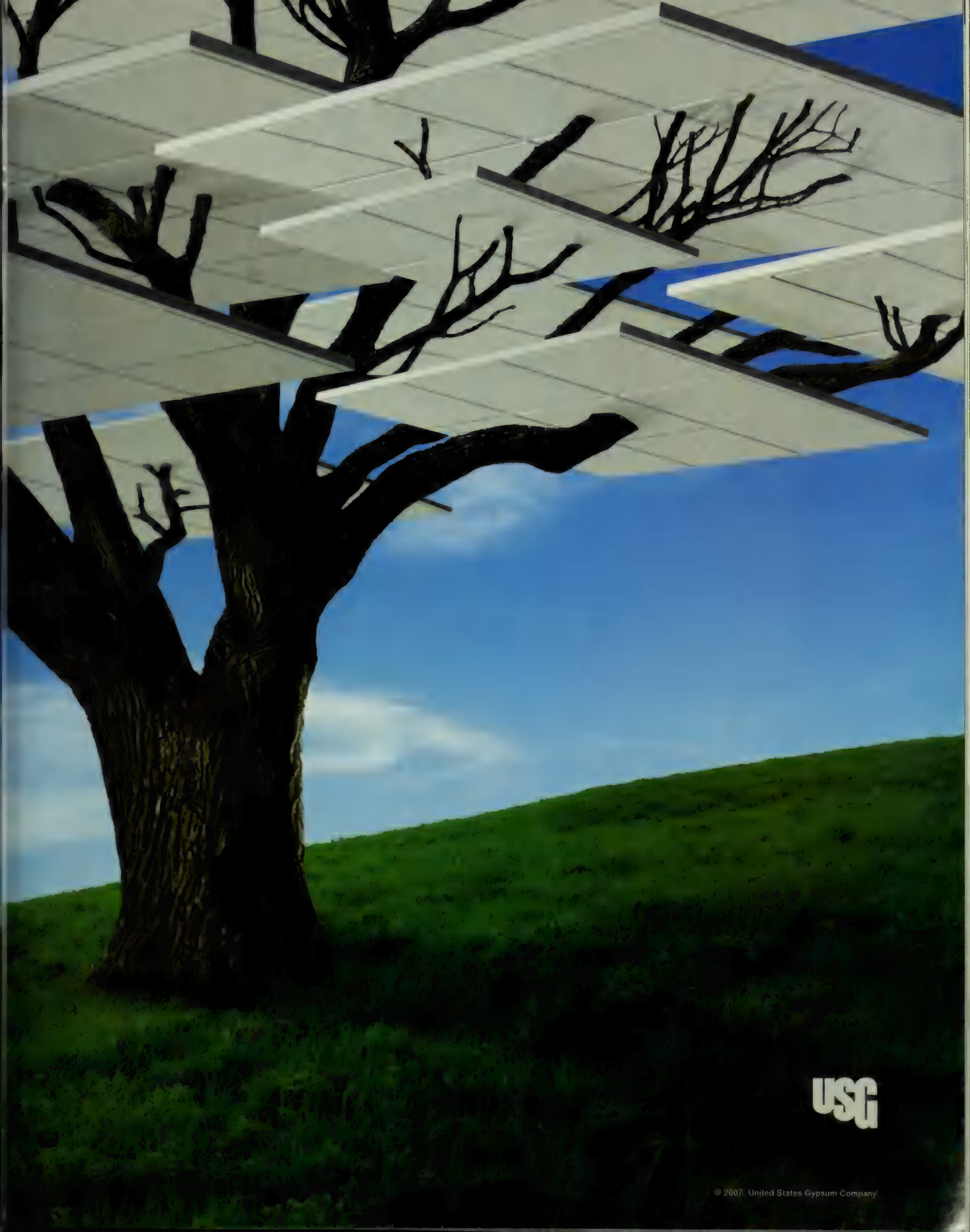
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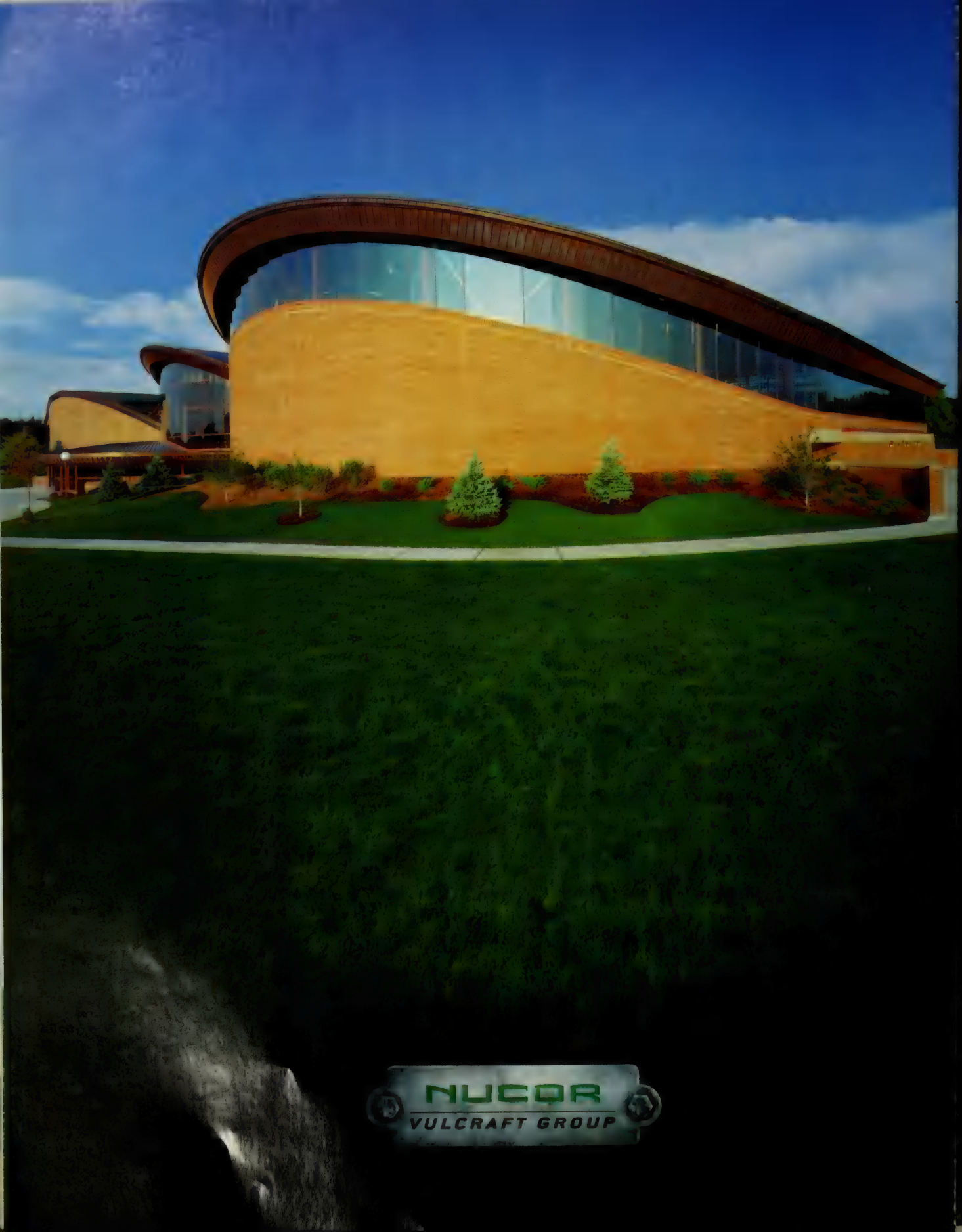


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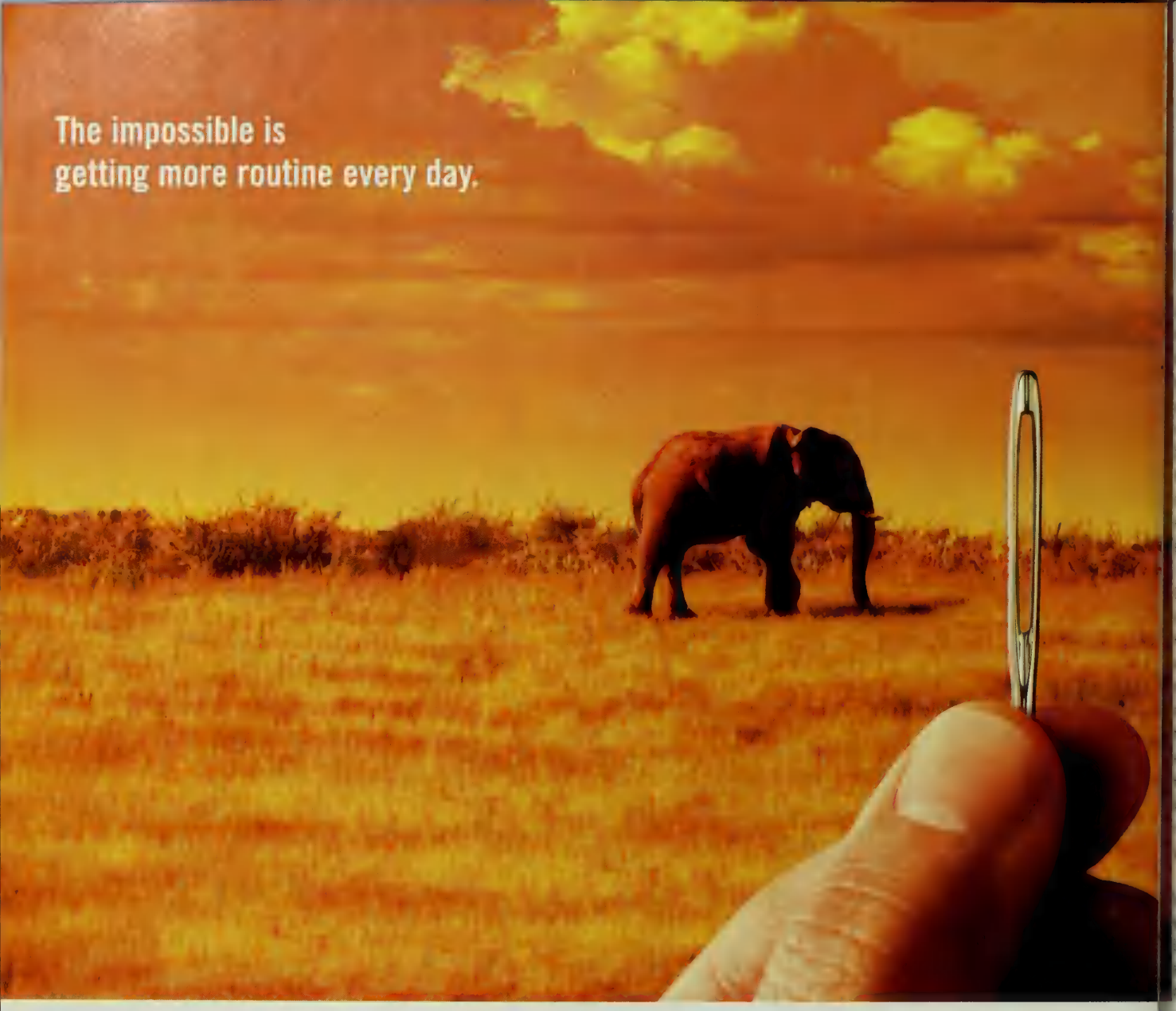
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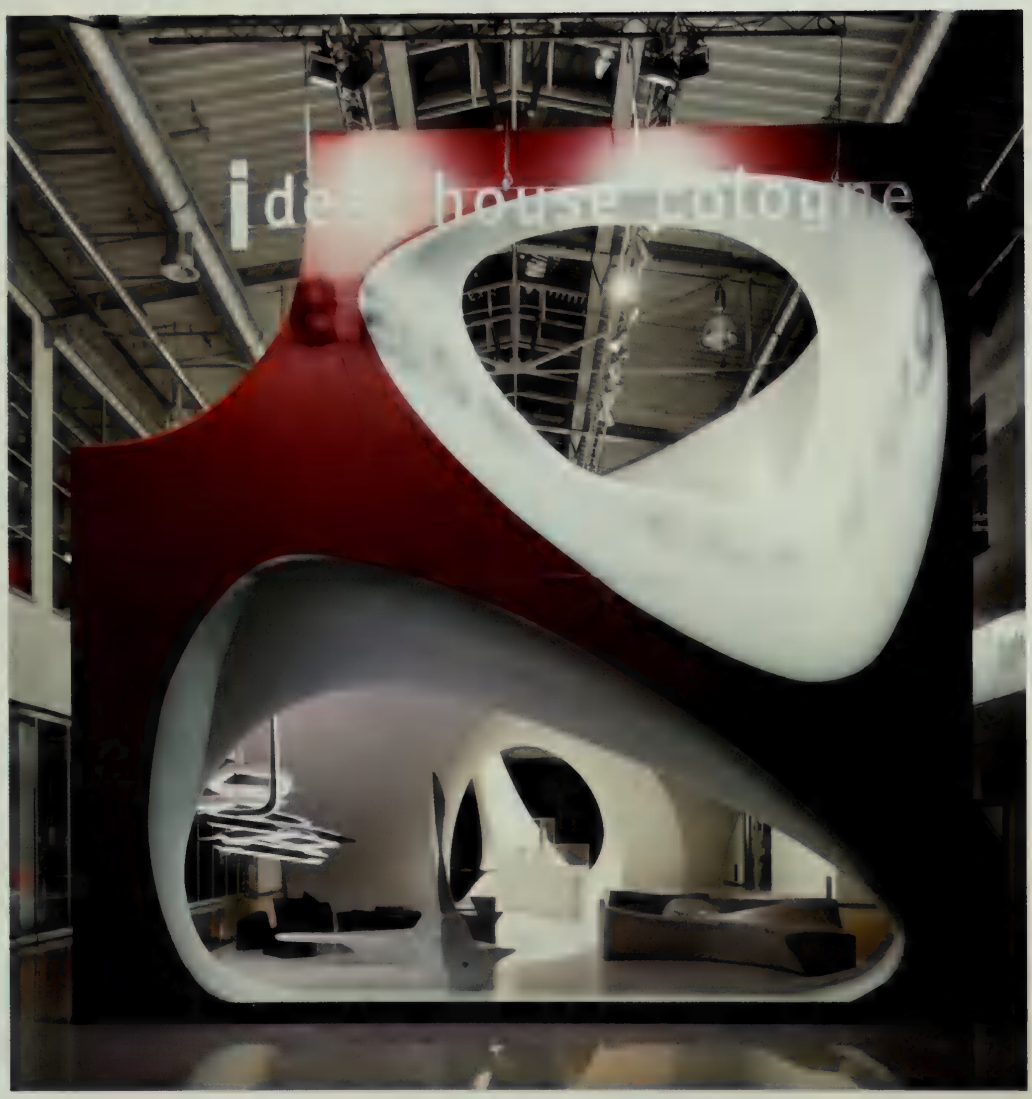
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Record News

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Future Shock: Hadid and Fukasawa design homes of tomorrow



A couple of days in Frankfurt, Germany, checking out the latest fabric designs at Heimtextil, followed by a short cruise up the Rhine to witness imm, an immense furniture fair in Cologne, then jetting off to Paris for home-decorating tips at Maison & Objet—such is the pilgrimage of trend spotters and furniture fanatics each winter as a new year of design shows gets under way.

Apart from its sheer size, imm Cologne stands out for its unique displays—including its popular Ideal House exhibition, now in its fifth year, which asks two different, and usually contrasting, designers to present their ideas for home furnishings of the future. This year's theme of "The Architect and the Poet" had Zaha Hadid facing off against designer Naoto Fukasawa—the first time that a Pritzker Prize–winning architect has participated in the show.

Hadid, though, is no stranger to furniture fairs. Her furniture and lighting designs for Sawaya & Moroni, Established & Sons, and others are frequently the highlights of shows in Milan and London. Not surprisingly, many of these products were featured in her concept design for future living at imm, which she saw as an opportunity to "experiment on a smaller, more temporal scale."

Within a red, 14,125-cubic-foot box that the exhibition's organizers provide as the basic structure, Hadid created an open, dynamic volume by scooping out large chunks of the cube's faces (above). Using her trademark approach of morphing spaces, Hadid seamlessly merged furniture with its surroundings. Chandeliers drip from the ceiling while bench seating grows from the floor and a table rises like a rock formation in the center of it all. Warped walls embrace the undulating ceiling to form a stairway that leads to a roofless second level reserved for a not-so-private sleeping area. Hadid has transformed a static cube into a bundle of energy.

Taking the opposite approach, Fukasawa's Ideal House emphasizes the static nature of the cube to present a quiet, contemplative space. Perhaps best known for his work as creative director for the Japanese line Muji, Fukasawa created a pristine white box containing precise arrangements of his own Minimalist furniture.

Rather than inserting a second level, the double-height volume is exploited so that the massive, straight walls overwhelm the objects inside, leaving visitors to feel that they've somehow passed through the looking glass into an alternate world—a vision of future living that includes increasingly empty spaces that are indistinguishable from one another. Some may find this version of the future bleak, but for others it represents the ideal, neutral background onto which they can project their own personalities.

Josephine Minutillo

Desert Island Oasis: Gehry, Nouvel, Ando, and Hadid join Abu Dhabi's big cultural gambit



For architecture lovers, its name seems especially apt: Saadiyat, the "island of happiness." In roughly a decade, this undeveloped piece of land in Abu Dhabi will be home to an unprecedented concentration of buildings by Frank Gehry, Jean Nouvel, Tadao Ando, and Zaha Hadid.

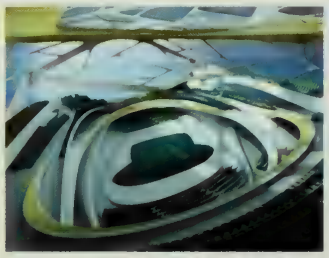
The Saadiyat Cultural District is one of six neighborhoods planned for a harbor island in the capital city of the United Arab Emirates. Spearheaded by Abu Dhabi's Tourism Development and Investment Company, the $27 billion project is intended to increase tourism to this oil-rich Persian Gulf state. It is already being touted as the world's largest cultural development.

Although parts of the scheme became public last year, its full scope was unveiled in January. As envisioned in a master plan created by Gensler and Skidmore, Owings & Merrill, with assistance from the Guggenheim Foundation, the Cultural District will contain four museums, a performance center, and 19 biennale-style pavilions—all linked by a canal.

"It's not unlike an early-20th-century world's fair, where the buildings are temporary and create a frisson of world culture, appealing to sightseers, but ultimately leaving shells of architectural ideas," notes Mimi Zeiger, author of *New Museums*.

To anchor the district's northern end, Gehry designed a branch of the Guggenheim. Nearly 30 percent larger than his iconic Bilbao building, it is a jumble of twisted stone-clad boxes, slanted square towers, and cones. Ando's museum, which is dedicated to the region's maritime history, takes the form of a rectangular box whose underside is scalloped into a 46-foot-high arch over the harbor. It marks the canal's far end.

Elsewhere, Hadid created a performing arts center that resembles a stack of veined, fused, and overlapping leaves, sculpted in metal and glass. The biennale pavilions, to be designed by up-and-coming architects, will be situated between it and



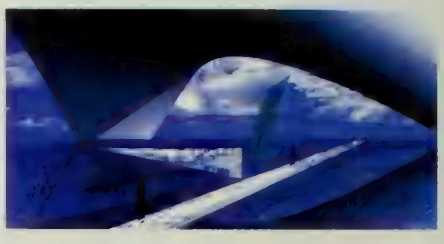
Hadid's performing arts center includes a concert hall (above). An umbrellalike roof shelters Nouvel's classical museum (top left).

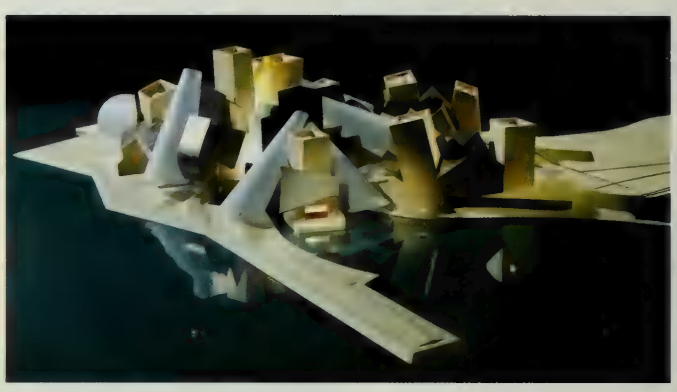
an as-yet undesigned institution dedicated to Abu Dhabi's heritage.

Nouvel designed a "classical museum," devoted to art of the past. It comprises a 590-foot-wide, 80-foot-high, umbrellalike roof sheltering a cluster of one-room buildings. The French government is negotiating a $900 million deal that would allow the United Arab Emirates to use the Louvre's name for this museum and stock it with art on loan, but the agreement has sparked controversy in France.

Given the uncertainty about individual elements, a timetable for the entire project has yet to be set. Whether or not Abu Dhabi succeeds in becoming a must-visit destination for those on a pilgrimage to see great art and architecture also remains to be seen. As Scott Tilden, editor of *Architecture for Art* (2004), observes, "The strength of the district as a cultural asset will be secondarily the architecture and primarily the quality of the collections." *Robert Such*

Ando's maritime museum forms an arch over the Saadiyat's harbor (right), while a Guggenheim museum designed by Gehry presents a jumble of towers (below).





Krens shares his inside view on Saadiyat

Thomas Krens, director of the Guggenheim Foundation, played an important role in envisioning Saadiyat Island's Cultural District after Abu Dhabi's Tourism Development and Investment Company sought his assistance in 2005. RECORD's news editor, James Murdock, spoke with him to learn more.

RECORD: What's your sense about why Abu Dhabi is doing this?

KRENS: Abu Dhabi can pump oil at present rates and their reserves will last until 2146. Let's assume that other, alternative-energy sources replace oil sometime, but probably not soon. Assuming some stability prevails in that part of the world, this country is destined to be wealthy beyond almost any conceivable imagination for a very long time. They can basically do what they want—and they are interested in education, they're interested in culture.

RECORD: Gehry, Nouvel, and Hadid's designs refer to an Islamic tradition of architecture. Was that a guideline?

KRENS: This is not about exporting European culture. It's an opportunity to make a different kind of a comment or statement in the Middle East. The Middle East is an obvious place for this, let's call it "alternative diplomacy." To the degree that you don't want to just come and put in a shopping mall, or the Empire State Building, or some kind of bizarre architectural piece, what you want to do is encourage artists and architects to think and develop their vocabularies with regional and local references. That's what they did rather spectacularly.

RECORD: You've said that the Guggenheim's challenge is to look to the next generation of museums. How does this project reflect that?

KRENS: It's a Western conceit to think that contemporary culture is a province of the North Atlantic and it's an unsustainable conceit. Now, does that mean building more museums? I don't know. But it probably means that if you don't think systematically about dealing with these kinds of cultural forces that what you risk is irrelevance. All I can say is that this is not about doing "Bilbao 2." Bilbao is a creature and product of the early 1990s. The whole point here is to go beyond that and to think about what institutions will look like in the future and how will they be shaped. You could do worse than Frank Gehry, Jean Nouvel, Zaha Hadid, and Tadao Ando for a beginning.



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Architecture profession slowly gains diversity

The complexion of America's architects has been a subject of introspection and discussion since at least 1968, when Whitney Young, Jr., president of the National Urban League, chastised attendees at the AIA's national convention for the scarcity of African-American and women practitioners.

That dialogue finally appears to be producing results. Kate Schwennsen, FAIA, the AIA's second female president, just concluded her term; current president RK Stewart, FAIA, has expressed a fundamental commitment to expanding diversity; and Marshall Purnell, FAIA, will serve as the association's first African-American president in 2008. Increases in diversity are not limited to the AIA's leadership, but there have been few comprehensive studies. The research that does exist suggests a mixed record of success—particularly when it comes to licensure.

According to the AIA's 2006 firm survey, women compose 26 percent of all architecture staffs, up from 20 percent in 1999. There are also more people of color, whose representation grew 7 percentage points, to 16 percent. But these gains have not benefited all groups equally. Although the AIA's survey did not track specific races, other indicators suggest that African-Americans, in particular, continue to be underrepresented.

Dennis Mann, codirector of the Directory of African-American Architects, says that his directory currently includes 1,578 licensed African-American architects. That figure accounts for 1.5 percent of all licensed professionals in the nation, a percentage virtually unchanged since Young's powerful speech.

"There are approximately 1,200 African-Americans in a professional degree architecture program in any one year. That hasn't changed much," Mann observes. By comparison, both he and Steven Lewis, president-elect of the National Organization of Minority Architects, say that anecdotal evidence indicates the number of Asian-American and East Indian students is on the rise.

The composition of architecture schools is a good predictor for how the profession as a whole will look in 20 years. The National Architectural Accrediting Board tracks some racial groups as well as the number of women, but the law firm Holland & Knight, who surveyed the profession as a whole in 2005, described these data as unreliable—making it difficult to draw any conclusions. Meanwhile, there is no definitive study of architecture practice among Hispanics, America's fastest-growing group.

One area that has been studied in some depth is licensure. Holland & Knight found that while 69 percent of white respondents said they were licensed or registered, only 45 to 48 percent of all other races said the same thing. A similar imbalance remains between men and women: Whereas 73 percent of male respondents said they were licensed or registered, only 45 percent of female respondents were.

Although people disagree about the importance of licensure, many observers side with Ted Landsmark, president of the Boston Architectural College, who stresses that obtaining a license sets in motion a domino effect to increase diversity. "If ever architects are to be perceived as leaders in the profession and rise to a place that a Marshall Purnell has achieved, it is because they are licensed practitioners with private, corporate, and government clients," he explains. "Without that leadership, then there aren't the role models who will attract other diverse people into the profession."

Curtis J. Moody, FAIA, whose firm Moody/Nolan is the largest African-American-owned firm in the U.S., believes that a lack of current role models is one explanation for the underrepresentation of licensed African-American architects. "If you're the lone African-American in Harrisburg, Pennsylvania, you're less likely to be mentored by an African-American who's gone through it."

For women, the obstacles to achieving licensure are different. Jane Weinzapfel, FAIA, of Leers Weinzapfel Associates Architects, in Boston [AIA 2007 Firm Award winner; RECORD, January 2007, page 20], notes that child rearing can present a roadblock. "Our mechanisms for licensure need to acknowledge that there can be a collision with life events," she says.

For his part, Landsmark says that recognizing all forms of diversity is crucial for architecture's ongoing viability. "A profession that continues to shrink in relation to the size and emerging diversity of the client base will result in a niche that has little relevance to the major environmental issues that lie ahead," he observes. *David Sokol*

Design symposia focus on African-Americans



Robert Taylor

African-Americans are underrepresented among the ranks of architects in the United States today. Figuring out why that's the case—against a backdrop of nagging questions about race and housing, exposed by Hurricane Katrina—is the task of three, first-of-their-kind symposia beginning this month.

"Unspoken Borders: Perspectives on Race in Design," which the University of Pennsylvania, in Philadelphia, presents from March 30 to 31, promises to be the most comprehensive. It will supplement panel discussions with off-campus tours, including one to a controversial luxury condominium and big-box retail development in Cramer Hill, an African-American and Latino section of nearby Camden, New Jersey. "People need to see what's going on out there," says Sherry Taylor, chair of the school's Black Student Alliance, which organized the symposium.

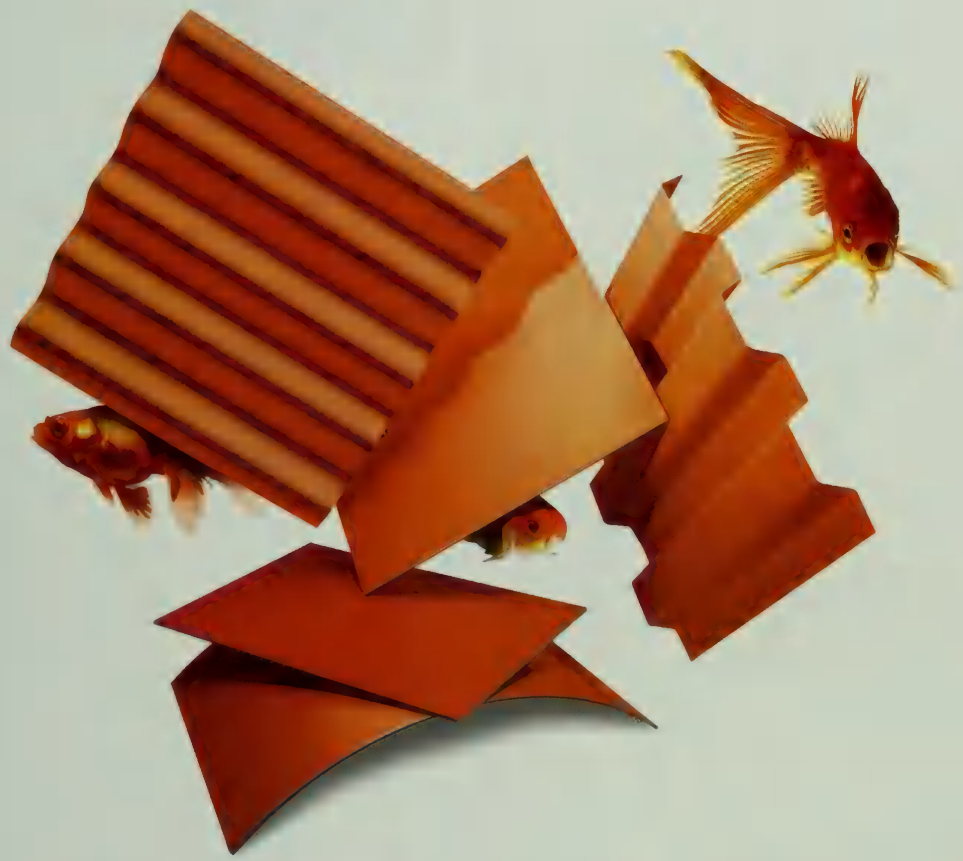
African-American neighborhoods will also be the subject of Harvard University's "Forced Perspective: Widening the Frame Through Which the Profession Views Itself." This event, on April 20, will pay close attention to New Orleans and the sluggish pace of rebuilding. "We can no longer depend on the government to be our knight in shining armor," says Steven Lewis, Harvard's Loeb Fellow and the event's director. In addition to examining New Orleans, Lewis also hopes to draw more attention to black builders' historically unsung roles. "Our handprints are everywhere, but our signature is invisible," he says.

Blame for this invisibility could lie with architecture schools, which fail to attract enough people of color: That's the view of Mark Jarzombek, who is cohosting "The Black Architect's Journey," in Boston, at the Massachusetts Institute of Technology, from March 16 to 17. MIT holds the distinction of having graduated Robert Taylor, the first African-American to earn an architecture degree, in 1880. This makes the campus an apt setting for a discussion of race and design, Jarzombek says, but the school's record of diversity since its early days has been mixed.

"WE HAVE TO ASK OURSELVES IF THERE'S HIDDEN OR IMPLIED RACISM."

"Why are these students going to some places and not others?" asks Jarzombek, who teaches architecture at M.I.T. "We have to ask ourselves if there's hidden or implied racism." This will no doubt be food for thought at all three events. *C.J. Hughes*

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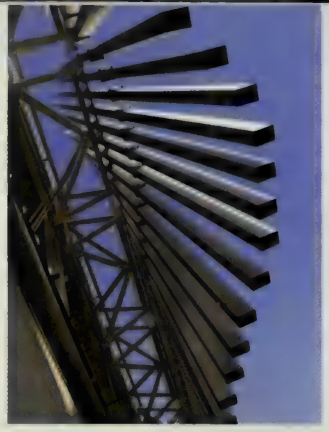
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AIA New Orleans Chapter names a dozen Design Award winners from largest-ever applicant pool

Design is alive in well in the struggling Gulf region. That much is clear judging from the 12 winners of the American Institute of Architects New Orleans Chapter's 2007 Design Awards. The honors were bestowed in late January at a ceremony whose theme, "Good Design is Good Business," highlighted architecture's role in the area's recovery.

This year's competition attracted more than 70 entries: the most in the chapter's 97-year history and four times the number submitted for 2006. Winning designs included both complete and in-progress work, with building types ranging from historic preservation and housing to schools and urban design schemes. The unique, sometimes daring projects represent a cross section of the region's design culture, which is more diverse than many outsiders realize.





Eskew+Dumez+Ripple's "wave wall" (left) is composed of 122 pivoting aluminum tubes arrayed across the LIGO Science Education Center, in Livingston, Louisiana. Wayne Troyer Architect won a Merit Award for its own studio, inside a converted New Orleans warehouse (below left).

"This is a great indicator for the city's redevelopment," says Melissa Urcan, executive director of the New Orleans chapter. "As the recovery continues, there's going to be more and more great work."

Eskew+Dumez+Ripple took home three honors, including a Merit Award for the Magazine Street Apartments in New Orleans, which features facades made of multi-shaped, staggered cubes. It also received recognition for the "wave wall," 122 pivoting aluminum tubes arrayed across the southern elevation of the LIGO Science Education Center, in Livingston, Louisiana. LIGO's own scientists and artists also contributed to this design.

Wayne Troyer Architect, which earned four honors, was cited for its hip renovation of a warehouse to create new studio space for itself in New Orleans. And its Rice Mill Lofts, an industrial-to-residential, adaptive-reuse project aiming for LEED Platinum certification, won a merit award.

Perez, APC was cited for the residential conversion of 1231 Decatur, a Colonial-style building in New Orleans's French Quarter. That firm also received honors for its Navigation Canal Park scheme, a proposal to create undulating parkland along one of New Orleans's levees. *Sam Lubell*

Funds for Gulf Coast housing questioned

With the Federal Emergency Management Agency (FEMA) set to begin distributing $400 million for semipermanent housing in states ravaged by Hurricane Katrina, controversy is brewing over how these funds are being apportioned.

FEMA announced in December that two projects in Mississippi would receive up to $280 million, while Louisiana efforts would get a maximum of $75 million. The agency was due to receive final plans on February 20. But Louisiana officials contend that their state got the short shrift. They point to a FEMA report documenting roughly 64,000 Louisiana residents and around 36,000 Mississippi residents still living in government-issued trailers as of August. Calling the funds dispersal "[illegible] down decision making," U.S. Senator Mary Landrieu (D-La.) is considering whether or not to launch an investigation. She and others question the architectural merit of Mississippi's plans.

The FEMA Alternative Housing Pilot Program, created last fall by congressional appropriation, encourages new approaches toward "context sensitive" temporary housing to replace the current trailers. Selected from a field of nearly 30 entries, Louisiana's Cypress Cottage Partners Project was awarded $75 million for the so-called "Katrina Cottage." First developed by Marianne Cusato, with future models by architects including Andrés Duany, the hurricane-resistant structures come in four reconfigurable varieties: two Shotgun homes, one Creole Cottage, and one Acadian-style home.

Mississippi's top entries, the Mississippi Cottage and the Park Model, were developed during the state's Renewal Forum. Although both recall the area's Raised Cottage vernacular, they are similar in size and shape to FEMA's current trailers.

"If we're looking for alternatives then we find it very upsetting that the bulk of money went to a project that in FEMA's own words is very similar to a trailer," says Jeff Hebert, the Louisiana Recovery Authority's deputy director of planning.

FEMA could not be reached for comment, but Gil Jamieson, the agency's deputy director for Gulf Coast recovery, has said that funding was based on merit. "Had we strictly stayed with the competitive bid process, that money would have all gone to one state," Jamieson told The Associated Press. "Mississippi had … the most competitive housing proposals."

Mississippi is also receiving nearly $6 million for Green Mobile structures that consume less electricity for heating and cooling. Projects in Alabama and Texas, meanwhile, will each receive up to $16 million; no entries from Florida made the cut.

Landrieu, who chairs a Senate committee that oversees FEMA, asked the agency for a more precise explanation of how it reached its decisions. She has yet to receive a response, a spokesperson says.

It's unclear if an investigation would halt the funds distribution. If current plans move forward, Louisiana officials anticipate rolling out 500 to 700 units within three to five months. Mississippi aims for between 5,000 and 7,000 units beginning in June. *S.L.*

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The Power Broker reconsidered: Moses's legacy gets a fresh look in New York

Nearly 40 years after he was forced from power, Robert Moses still defines the maximum limits an urban planner's influence may reach. As cities struggle to update infrastructure and attract long-term investment in a climate of political torpor, exhibitions and forums across



New York City this spring invite reassessment of Moses's legacy.

A symposium at the Museum of the City of New York on February 1 set the tone for these events by bringing together development experts to discuss what the current generation of planners might learn from Moses's "iron will and financial opportunism," as Dan Doctoroff, New York's deputy mayor, termed it. Although they differed in their view of Moses's impact on the city, panelists concurred that he created roads, parks, and apartments at a time when public money was easier to grab—and public misgivings were easier to ignore.

Doctoroff, who had led the city's failed bid for the 2012 Summer Olympics, took a few swipes at state lawmakers, whom he blamed for confounding big vision today. Sounding a bit like Moses himself, he drew laughs by explaining "Doctoroff's Law," an equation that multiplies the degree of difficulty in accomplishing a project by the number of necessary state approvals. But even Doctoroff conceded that post-Moses legislation requiring citizen review of major city projects has been beneficial. "In every case, the process has made our plans better," he said.

Majora Carter, who heads the grassroots group Sustainable South Bronx, challenged the audience to go beyond letting citizens simply review plans and instead let them initiate plans of their own. "The rebirth of communities where big projects didn't interfere with the organic process of regeneration is already big—and we can all be part of it," Carter explained. "The lesson from Moses is that these communities are smarter, kinder, more rational, and truly sustainable ones." *Alec Appelbaum*



The Panorama of the City of New York (left), which Moses commissioned for the 1964 World's Fair, reopens this spring after a rehab at the Queens Museum of Art. Moses studies an unbuilt highway in 1939 (below).

Moses retrospectives and symposia abound

Remaking the Metropolis* is on view at the Museum of the City of New York through May 28. This exhibition explores how Robert Moses created New York City's highway network—and helped the city better its standing on the global stage. *The Road to Recreation*, at the Queens Museum of Art through May 27, documents the relationship between Moses's roads and public spaces such as parks. Columbia University is presenting an exhibition titled *Slum Clearance and the Superblock Solution*, through April 24. The school is also hosting a public symposium, "Robert Moses: New Perspectives on the Master Builder," featuring two dozen scholars, on March 2 and 3. *A.A.

Mayor Bloomberg creates sustainability office to manage New York's long-term growth

New York is often described as a city of 8 million stories. But give it a few decades and this could be 9 million, according to a recent report commissioned by Mayor Michael Bloomberg. Managing population growth won't be easy, so Bloomberg created a new department called the Long-Term Planning and Sustainability Office. It is due to release preliminary guidelines this month.

Dubbed "PlaNYC," the effort will address critical issues including housing, energy, and global climate change. New York is not alone in launching such an ambitious plan—London and other cities are already working on similar schemes—but this represents the first detailed, long-range planning initiative in its history.

"New York has mostly been putting out fires for the past three

century," observes Kenneth Jackson, a history professor at Columbia University. "[It] has not had the luxury or the wisdom to think in a serious way about the future."

The consequences of unmanaged growth are now evident. This much was clear in a report compiled by the mayor's Sustainability Advisory Board, a forerunner to the new planning office. It found that New York's asthma hospitalization rates are double the national average; an area twice the size of Central Park is severely polluted; and that raw sewage regularly overflows into the city's waterways.

But with the city finally on a sound financial footing, the timing was right to tackle these problems, and its future. "The city is doing well," explains Robert Yaro, a member of the mayor's advisory board and president of the Regional Plan Association. "This plan is about managing success."

If New York is to be livable by the year 2030, when the board predicts its population will hit 9 million, the city will need 250,000 new housing units. It will also need to overhaul water and transportation infrastructures—which will be more than a century old—and build new power plants. As if these tasks weren't enough, it could be facing a 2-degree-Fahrenheit rise in average temperatures, courtesy of global warming. The advisory board therefore called for New York to reduce its greenhouse gas emissions by 30 percent.

Exactly how the city will achieve these goals, and with what money, is the subject of guidelines that the new planning office is issuing this month. Its recommendations are based on meetings held with community groups in all five boroughs.

"This is a very laudable effort," says Ernest Hutton, Assoc. AIA, cochair of New York New Visions, which helped coordinate the meetings. "Other mayors have just thrown up their hands and said New York's too big to do that."

Hutton adds that other administrations worked in the shadow of New York's ultimate power broker, Robert Moses. The new outreach efforts represent an attempt to counter his unilateral approach to urban planning. Whether or not they succeed, of course, remains to be seen.

"As Moses himself recognized," Jackson observes, "at the end of the day, there's no such thing as unanimity, and someone has to make a decision." *Kevin Lerner*



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Dion Neutra selling his firm's last surviving commercial building—with strings attached



Message to Brad Pitt: If you're reading this, Dion Neutra, AIA, has a business proposition for you.

Neutra, son of the late California Modernist Richard Neutra, is looking for someone to buy his firm's former office building, in Silver Lake, California. Completed in 1950, it is now his father's only surviving commercial structure. The asking price is $3.5 million, but there's a catch. In addition to paying all cash, a buyer must agree to leave the landmarked property untouched—or risk losing the deed.

Neutra created this innovative conservation easement because he's frustrated with seeing his father's iconic buildings, such as the Maslow House, demolished. "Unless there's a severe penalty to pay, people end up doing stuff," he explains. "If this keeps happening, there won't be any record left of what we did. We were in practice for 80 years, and at least half of our buildings have been changed. I'm determined not to have this one changed."

And that's why someone like Brad Pitt might be interested. Neutra figures that a movie star or producer would be an ideal landlord because he or she won't spend a lot of time at the building but will keep it occupied and in good repair. Plus, Hollywood types often have an affinity for this style of architecture. "The ideal buyer is a person who simply loves Modern architecture and understands that it's under threat and needs to be saved at any cost. Brad Pitt gets $20 million each movie, so $3.5 million cash is no big deal," Neutra says.

The 2,800-square-foot building is currently on the market through a silent auction that Neutra anticipates will close in April. Under the easement's terms, buyers must agree to annual property inspections by an organization such as the National Trust for Historic Preservation. If unauthorized alterations are discovered, a court will immediately transfer the deed to an entity like the trust, or one specially created for this purpose.

Neutra created this easement after learning about a similar system for historic properties in France. Although U.S. banks are proving skittish about it, which is why Neutra needs an all-cash buyer, he thinks this model could be replicated.

"What it comes down to is if you have a hidden agenda, you don't need to apply," Neutra says. "You wouldn't buy a Picasso and have plans for revising the color scheme or the lines. If you really do care about a building, you'll preserve it just like a piece of art." *James R. Murdock*

Will Boston's new Institute of Contemporary Art be its "Bilbao on the Harbor"?

With a wave of redevelopment rolling toward Boston's old industrial waterfront, Diller Scofidio + Renfro's much-lauded new home for the city's Institute of Contemporary Art (ICA) (see page 108) has established a beachhead for ambitious Modern design.

The ICA late last year moved from the Back Bay to its new home at a long-vacant site on Fan Pier, in a gritty area southeast of downtown. Plans approved for the nine-block, 21-acre waterfront district include office towers, a luxury hotel, condominium buildings, and retail shops. New public parks and a marina are also in the works. Of these projects, 1.3 million square feet of space could be under way by the end of 2007. All told, the master plan allows for up to 3 million square feet of development.

While the popularity of the ICA might suggest Boston sought a Bilbao Effect—an urban renewal driven by the construction of an iconic cultural building—that was no conscious plan to seed the area by building the museum first. According to Kairos Shen, Boston's director of planning, "The plans for the entire waterfront, including the Fan Pier, predated the ICA. The civic spaces and museum evolved out of a larger planning effort. The ICA was completed quicker partly because it was not constrained by the same set of economic and market conditions that affect private developers."





Adjacent to the Institute of Contemporary Art on Boston's Fan Pier, Hill Glazier Architects have designed a luxury hotel containing 175 guestrooms and more than 100 condominium units (left). Elkus/Manfredi designed an 18-story office building at a site nearby (below).

The property had been tangled in legal disputes for decades, straining the patience of public officials eager to see the prime location developed. In 2005, the Pritzker family of Chicago sold the land to local developer Joseph Fallon and Massachusetts Mutual Life Insurance, who refined a scheme negotiated by the Pritzker group and quickly moved forward with it.

Construction on a hotel and residential building, designed by Hill Glazier Architects, is set to begin later this year on a site behind the ICA. This will be followed by a condominium building by Hill Glazier and office towers by Brennan Beer Gorman Architects and Boston-based Elkus/Manfredi Architects.

Like the ICA, the new Fan Pier projects eschew Boston's various revival styles—such as the ubiquitous redbrick Federalist mode—in favor of angular expanses of glass. "It was an easy call. Glass maximizes the views," Fallon explains.

Although the ICA is less a catalyst for these new developments than simply an accompanying project, it is nevertheless having an effect on the area. Its contemporary design, Shen says, has "stimulated a conversation about architecture and raises the bar for private development as well." *Ted Smalley Bowen*

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AIA releases results from its "Top 150" buildings survey

The Empire State Building is top of the heap again. Once the world's tallest skyscraper, this 1,454-foot landmark ranks No. 1 on a list of Americans' 150 favorite U.S. structures—that according to a new poll commissioned by the American Institute of Architects (AIA) to celebrate its 150th anniversary and generate public awareness about architecture.



The Harris Interactive online poll surveyed more than 1,800 adults using a list of 247 structures—including buildings, bridges, and monuments—that an AIA panel preselected. Results were made public during the AIA's annual Grassroots Leadership and Legislative Conference on February 7. But some observers, even within the AIA itself, were surprised by the poll results, which read like a list of tourist hotspots.

The White House holds the No. 2 spot in the public's eye, followed by the National Cathedral, the Jefferson Memorial, the Golden Gate Bridge, the U.S. Capitol, and the Lincoln Memorial. Nearly half of the 150 structures, in fact, are well-known landmarks located in Washington, D.C., New York City, or Chicago.

"What we found was that Americans chose buildings that evoke powerful feelings and strong emotions," AIA president RK Stewart, FAIA, said at a press conference accompanying the survey's release. "Many of the top 10 are symbols of our democracy, but they're also the places where people live, work, and play."

Thomas Jefferson's Monticello, begun around 1769, is the oldest building on the list, and the newest—still under construction—is the New York Times's new headquarters by Renzo Piano. But contemporary architecture built within the past two decades makes up only one fifth of the list.

George Miller, FAIA, who chairs the AIA 150 Committee, admitted that he "was expecting the list to have more architecture of our current times." Even so, Miller is pleased with the survey. Likening it to the Oscars or the People's Choice Awards, he said that the rankings are "kind of an American pastime. What the list is likely to do is generate a conversation across the country among architects and among the public."

While critics agree that the list is certainly a conversation starter, some question whether or not the AIA might have spent its money better on something else. The AIA is remaining mum on how much the survey cost, but a spokesperson says that AIA's leadership feels the effort was worth it. Visitor traffic to a special AIA 150 Web site grew from just 7,000 visits per day to more 27,000 per hour during the first day after the poll's release.

Witold Rybczynski, a professor of urbanism and real estate at the University of Pennsylvania, takes a pragmatic view. "Such lists are publicity stunts, of course, but they attract attention because people enjoy reading such compilations: partly to compare the list with their own favorites, and also to see if there is something that they have missed. Hardly profound, but harmless."

For those who keep score, Frank Lloyd Wright's work appears most often on the list: eight times. Richard Meier scored five projects, the most for a living architect. His acclaimed J. Paul Getty Center for the Arts in Los Angeles was ranked 95. Three favorites were designed by women, including two in the top 10: Maya Lin's Vietnam Veterans Memorial and the landmark Golden Gate Bridge, in San Francisco, designed by Gertrude Morrow with her husband, Irving. Julia Morgan's Hearst Castle, in San Simeon, California, placed 41. Visit www.archrecord.com for the complete results. *Barbara J. Saffir*

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AIA names Thomas Jefferson and Young Architect awardees

David Dixon, FAIA, of Boston, and Michael A. Fitts, FAIA, of Nashville, are this year's recipients of the American Institute of Architects' Thomas Jefferson Award for Public Architecture. This AIA honor recognizes excellence in architectural advocacy and achievement. Dixon, who directs the Goody Clancy & Associates' urban design group and is a past president of the Boston Architectural Association, received the award in the category of private sector architects who design noteworthy public projects. Fitts received the award in the category of public sector architects who produce quality designs. As Tennessee's state architect for the past 35 years, he has overseen more than $4 billion of public works under four governors. With its Jefferson Award, the AIA typically also recognizes public officials who advocate for better design—but it did not make a selection in that category this year.

The AIA also announced the six recipients of its 2007 Young Architects Award, which recognizes individuals who have made significant contributions to the architectural profession early in their careers. The winners are Roy Abernathy, AIA, a managing partner of Jova/Daniels/Busby, in Atlanta; Michael P. Eberle, AIA, an architect and senior associate at Flad Associates, in Madison, Wisconsin; Lonnie D. Hoogeboom, AIA, a partner at Natalye Appel + Associates, in Houston; Phillip Koski, AIA, owner of Inland Office for Tomorrow's Architecture, in Minneapolis; James Mary O'Connor, AIA, a principal of Moore Ruble Yudell, in Santa Monica, California; and Suzanna Wight, AIA, emerging professionals director for the AIA. Despite its name, the Young Architects Award is not age-based but is instead open to professionals who have been licensed for 10 years or less.

The AIA will officially bestow these awards in May at its 2007 National Convention and Design Exposition, in San Antonio. Watch for additional coverage on all the winners in RECORD that month. *J.R.M.*

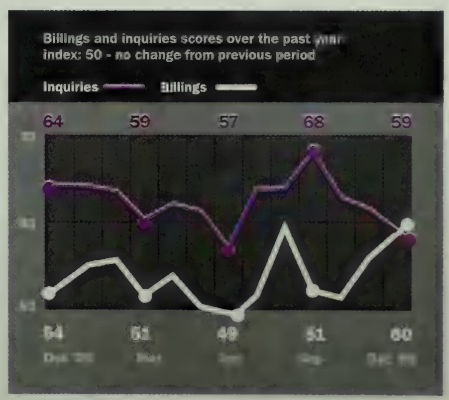
8NW8, by SERA Architects, lauded with Terner Prize for affordable housing



A low-income apartment building in Portland, Oregon, named 8NW8 is the winner of this year's I. Donald Terner Prize, a biennial honor given to innovators in affordable housing. Designed by SERA Architects, and developed by Central City Concerns, 8NW8 includes 180 drug- and alcohol-free SRO units. The $50,000 award, given by the Center for Community Innovation, in Berkeley, California, commemorates the life of Terner, a housing advocate who died during a humanitarian mission to Bosnia in 1996. Chosen from a field of more than 80 entries, five others received commendation: People's Self-Help Housing; Public Initiatives Development Corporation; Mercy Housing California; New Economics for Women; and the Jonathan Rose Companies. *Jane Kolleeny*

AIA's Billings Index shows upturn at end of 2006

Beginning with this issue, RECORD is publishing the American Institute of Architect's monthly Architectural Billings Index (ABI). The index comprises data that is compiled from a survey sent to 300 firm leaders, such as principals and partners, primarily in the commercial design sector. Studies have shown that the ABI is a good predictor for construction spending roughly nine to 12 months from a given data point. The chart below also includes the average number of inquiries made to architectural firms. Look for the ABI and inquiries chart in RECORD throughout the year. *J.R.M.*



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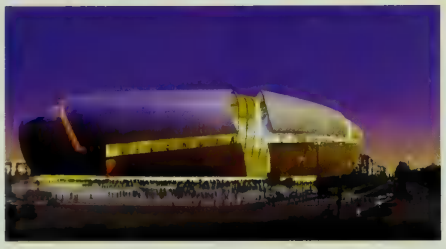
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Valencia's street map inspires stadium design

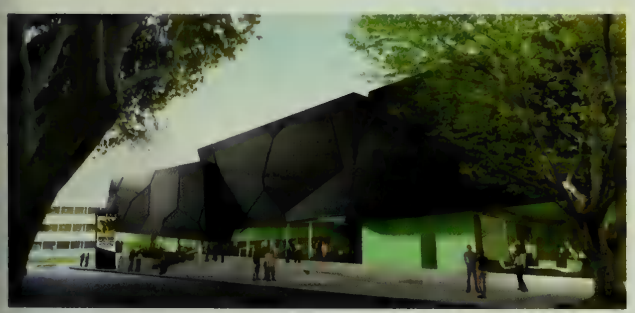


Add Valencia, Spain, to the list of cities now constructing an iconic, sculptural sports stadium. Work begins this month on a new, 75,000-seat home for the local soccer squad. Designed by Reid Fenwick Asociados, with Arup Sport, it will be one of the largest and most ecosensitive stadiums in Europe—and, its designers hope, a point of civic pride when it opens in 2009. "Football is such an emotional sport, it's almost like a religion," says architect Mark Fenwick, referring to European soccer. "We had to pack all of that emotion and feeling into a building that would be theirs and only theirs."

The stadium's most striking element is a curvy aluminum skin, split by seemingly random fissures that suggest the entire building is a squashed metallic soccer ball. Fenwick explains that its design in fact pays homage to Valencia's geography—the cracks correspond to a map of the city's 16 districts, with the largest one representing the Turia River. But the fissures also serve a functional purpose: Computer-controlled louvers within them will open and close, depending on weather conditions, to ventilate spectators as well as the playing field. Solar panels on the roof will supply power, giving the building an extra green edge.

Edges of any other sort will be hard to find. J Parrish, Arup Sport's architectural director, explains that the stadium will have the feel of a Spanish bullring: a tight seating bowl in which nearly all spectators face the action. This differs from traditional soccer arenas that, historically, were rectangular buildings in which many spectators face each other. Parrish adds, "It's much more curvaceous than most stadiums. You'll be able to recognize it instantly on TV, which is a modern requirement of stadiums." *J.R.M.*

Lab Architecture's fractured facade glows like lava at night



The expansion of Newcastle Region Art Gallery marks Lab Architecture Studio's first major building commission in Australia since 2002, when the firm—with collaborator Bates Smart—completed the massive Federation Square cultural center in Melbourne. Newcastle, a 150,000-person town located in the state of New South Wales, has little in common with sprawling Melbourne, a city of 3.7 million that is widely regarded as Australia's intellectual capital. But, thanks to some shared formal qualities between Lab's previous effort and its new art gallery, this sleepy harbor town will get a bold dose of big-city sophistication.

Both designs explore alternatives to repeating a regular, flat facade. Newcastle Region Art Gallery's upper two stories will be wrapped in staggered surfaces clad in black, oxidized stainless-steel panels. This reptilian skin bears a resemblance to the triangular pinwheel grid of Federation Square's Yarra Building, but unlike Yarra's so-called "fractal facade," which was dominated by a single triangular module, the Newcastle design will deploy irregular shapes. Moreover, the voids between panels will be illuminated from within, suggesting the appearance of molten fault lines at night. Inside, jagged volumes, asymmetrical coves, zigzags of track lighting, and a crystalline skylight will echo the exterior's uneven faceting.

The 50-year-old gallery, whose inventory numbers more than 3,000 artworks, has been in its current home since 1977. Lab's redevelopment will expand the building to 86,000 square feet without disrupting Newcastle's low-rise urban fabric. In addition to trebling the gallery space, the project will add a new theater, educational and library spaces, a shop, and a café. *David Sokol*



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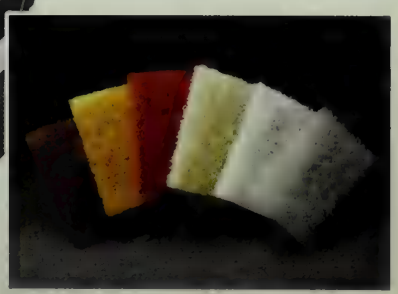
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For and about the emerging architect

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How do you find balance in life and career? We all know architects who spend 24 hours a day at work. But we've found two sole practitioners who've learned to make time for more than just their careers. New York–based Tina Manis has devised a successful formula for running an all-women firm while being a mother. For Boulder, Colorado–based Scott Rodwin, dance and sculpture give him an outlet for self-expression that architecture can't. Visit archrecord.construction.com/archrecord2/ and go to Talk to join the conversation in our forums.

Design

Tina Manis: equal parts family and firm



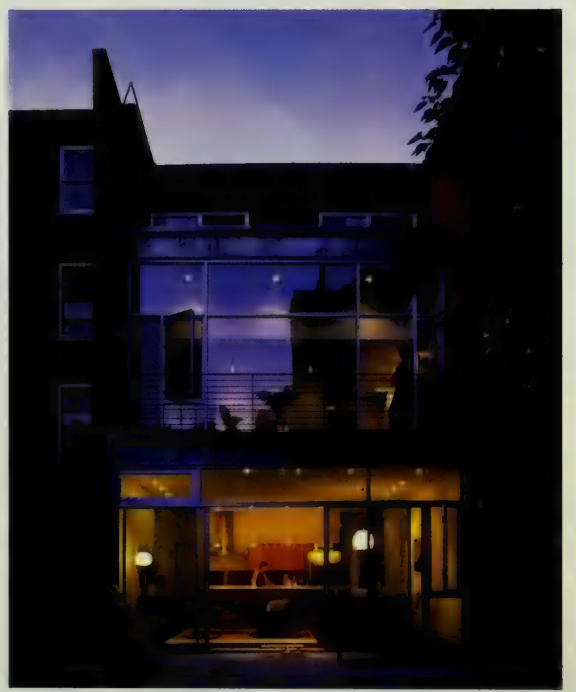
"It's hard, it's frustrating, it's wonderful, and it's exciting." Tina Manis is talking about the office she started three years ago and runs today, but could be just as easily describing raising a family. A young mother, Manis is in a position that is still surprisingly rare in the architecture field: She is the sole, female owner of an architecture firm whose two employees are also women. "We were saying the other day we could use some testosterone, but actually I think we have enough testosterone among us," Manis says, explaining that there's no intentional gender bias at her office.

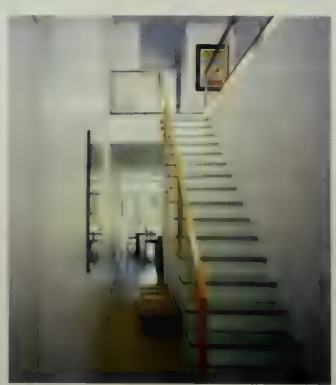


The work of Tina Manis Associates (TMA), in New York City, expresses femininity not in clichéd terms of curves and pastel colors, but in its approach to process. "We have a consciousness of and sensitivity to the everyday rhythm of residential work and also of the intricacies and politics of commercial work," Manis says. "What we make and how we conceptualize our work is neutral. I've always wanted that—I never wanted to play by a man's rules, but I didn't want to play *Sex in the City* either."

Manis, who has worked for Rem Koolhaas and Richard Rogers, clearly relishes setting up her office on her own terms. Going it alone has given her the advantage of being able to work in a nonhierarchical fashion—there's no one person barking out orders. While she's not afraid to make demands of her employees, she notes, "It's important to know that there exists another alternative, and you can still do amazing work." She's perfecting a kind of office lifestyle that allows for the inclusion of personal life—out-of-office concerns such as family—while maintaining a high level of professional rigor.

The practice is right now at a turning point. TMA recently completed a new town house in Brooklyn, New York—a rare and exhilarating opportunity to build ground-up construction in a city where there are a decreasing number of vacant lots. With this project, Manis had ideal clients. They said to her, "We have





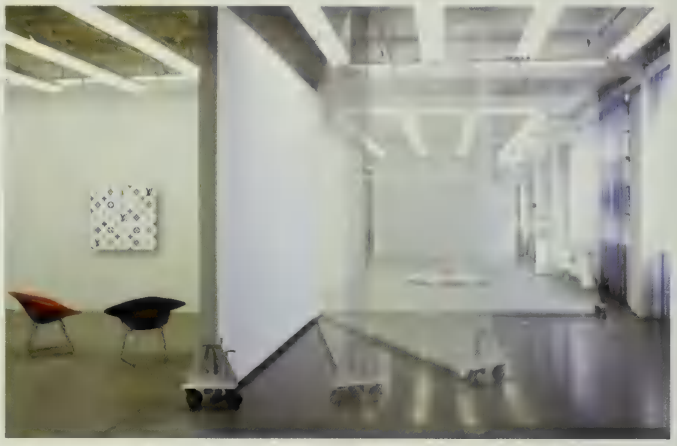
Butler Residence, Brooklyn, N.Y., 2006

A modern transformation of an urban, single-family brownstone into a duplex, the 3,150-square-foot renovation consists of a three-bedroom home on the ground and second level, with a two-bedroom rental unit on the third floor, including a private terrace.

these program needs, but you do your thing." Despite a "phenomenally low budget," she had the liberty to express a full range of her ideas, one of which is finding beauty in the "things that seemingly have no value." She adds, "We can take the most banal, boring material and actually invent with it. We're very interested in that kind of strategy towards architecture." TMA also just completed the first phase of a studio in Queens, New York, for Japanese artist Takashi Murakami.

Much of Manis's current work is residential, although she says, "I would like to move the office toward more institutional work." Unlike many of her peers, Manis's dream isn't just landing a client with lots of money to spend. Rather, she would like to work on a development for a marginalized group or a nonprofit organization. These projects "fulfill a kind of consciousness in me. There's a possibility of supporting humanity," she says. Although she jokes, another dream would be, "Getting paid well. A real jawbreaker salary." *Diana Lind*





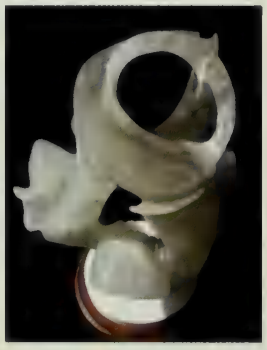
KaiKai Kiki Headquarters, Queens, N.Y., 2006
Minimal, two-story, 15,000-square-foot offices, gallery, creative studios, and industrial production spaces for the New York headquarters of Japanese artist Takashi Murakami's artist collective (left and right).

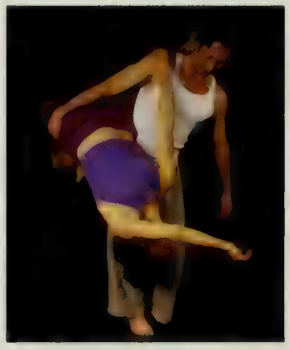
For more photos of projects by Tina Manis Associates, go to archrecord.construction.com/archrecord2/.

Work

Scott Rodwin: Finding balance in art, dance, and design

There's no doubt that Boulder, Colorado–based architect Scott Rodwin, AIA, is a Renaissance man. But does he also possess some superhuman power that lets him have more time in a day than the average person? You'd think running an award-winning, seven-person architecture firm, Rodwin Architecture, would be all-consuming. Yet, Rodwin manages also to create alabaster sculptures that are exhibited in various Boulder galleries, as well as participate in a form of dance called "contact improvisational."







Rodwin's alabaster sculpture Cloud Dragon *(left). Rodwin describes contact dance as a mixture of figure skating, Aikido, and Twister (center and right).*

"Imagine pairs figure skating combined with Aikido, a game of Twister, and surfing," says Rodwin about his chosen dance style. "It's a partner dance, typically done without music or shoes. There are no set steps, and the main principle is to be in the moment, and just let the dance spontaneously emerge from those natural forces."

According to Rodwin, his approach to sculpture, which he does in either translucent Italian alabaster or alabaster from a local quarry, is similar to his techniques for dance. "I look to shape the form of the stone to create a sculpture of dynamic space within. I enjoy pushing the limits of what can be done with stone—making it as delicate and gymnastic as possible, so that the grain, character, and translucency are revealed. The pieces almost always break at some point. Sometimes I can repair them, and sometimes I have to simply let go of any idea of what it should be and work with the new form as it is."

Rodwin says he has yet to incorporate any of his sculpture into his architectural projects, keeping his three interests separate and balanced. "Sculpture lets me make a physical form that is purely my own. But architecture is public art, and thus has a higher bar—finding a human connection to a wide range of people. Either do create even a single really great building, I believe that will be a great satisfaction. Dance is in a different category. I do it only for the experience of that present moment. Not for the end result. In that, it is often immensely satisfying. And then it is gone."

Rodwin may not think his architecture is great, but others do. He recently won the AIA Western Mountain Region Chapter's 2006 Young Architect of the Year Award. Does he have time to celebrate? Hardly. He admits that not yet having a family may be why he has so much time for his multiple interests, which don't stop at architecture, dance, and sculpture. While he's also completed books on women's self-defense and, recently, *A Wildly Incomplete Guide to Contact Improv*, he's now working on writing a book of dating stories called *Boys are Dumb, Girls are Crazy*. "My life doesn't leave much time for TV," he says. *Ingrid Spencer*

For more information on Scott Rodwin and all his ventures, go to archrecord.construction.com/archrecord2/.

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Can Robert Moses be rehabilitated for a new era of building?

Critique

By Michael Sorkin



A new book and trio of exhibitions reexamine Robert Moses (left) and his legacy of building projects, including the Jerome Avenue Overpass (above).

Robert Moses is back. In a sentiment that has been brewing for several years, the city's erstwhile master builder has come in for a heavy dose of revisionism. When so many of our big projects seem vexed by incompetence and stymied by community opposition, nostalgia for a man who can get things done is running rampant. And Moses was that in spades. As Lewis Mumford put it, "In the 20th century, the influence of Robert Moses on the cities of America was greater than that of any other person."

As the result of a three-part show—at the Museum of the City of New York, the Queens Museum, and Columbia University—curated by architectural historian Hilary Ballon, as well as a fascinating book, *Robert Moses and the Modern City*, co-edited by Ballon and Kenneth Jackson, and swelling media coverage, New York is burning with Moses fever. There is, in fact, much to celebrate in his 40-year career. Moses built on a mighty scale—parks by the hundreds, enormous public swimming pools and magnificent beaches, glistening suspension bridges, elegant parkways, and remade waterfronts—a legacy that forms the basis of much of what is great about New York today.

Since the 1960s, however, Moses has been remembered more for his dark side, for the half million poor people displaced by his projects for highways and urban renewal, for the neighborhoods he destroyed, for the psychotic roadways he slammed through the city. Mumford—joined by Jane Jacobs and many others—came to revile him, a view fixed by Robert Caro's titanic 1976 biography, *The Power Broker*, which accused Moses of having "used the power of money to undermine the



democratic processes of the largest city in the world." In urbanist Robert Fishman's slightly more ambivalent words, Moses—who did not shy from comparing himself to Baron Haussmann—"combined the high-minded idealism of a public servant with the insults and innuendoes of a Tammany politician."

The dark side of history

While I agree that it's important to celebrate the constructive part of Moses's achievement, I want to devote this column to the brief for the dark side, the cautionary lessons of this history. For all his successes, Moses did very bad things and there are three indelible charges that continue to have enormous relevance, both in how we remember Moses and how we plan today. These are, simply put, that Moses pioneered and ruthlessly wielded a set of fundamentally undemocratic instruments for planning; that his priorities were distorted to the detriment of a more "holistic" view of urbanism; and that he was a racist whose project disproportionately harmed the poor and people of color.

Although Moses was not the inventor of the public authority, his refinement of its instrumental power and his use of that apparatus to consolidate sweeping control in his hands was dramatically innovative. From the headquarters of the Triborough Bridge and Tunnel Authority on Randall's Island, Moses presided over a freestanding empire that was essentially immune from public review and that wielded powers of condemnation, bonding, and revenue collection that made it virtually autonomous. Moses ruled like a king, dispensing largesse, ignoring opposition, and ruining the careers of those who stood in his way.

Expansion of powers

While the chastening example of his dictatorial methods continues to be a caution, it is striking that the major planning projects in New York today—including Ground Zero and the West Side Yards in Manhattan and Atlantic Yards in Brooklyn—are all enabled by the special powers of condemnation and immunity from full review exercised by their owners, the Metropolitan Transit Authority and the Port Authority of New York. The baleful specter of Moses also surely hovers over the current national expansion of governmental powers of eminent domain and seizure of private property in order to advance not public but private commercial interests, so dramatically pioneered by Moses in projects like Stuyvesant Town and the raft of urban-renewal

Contributing editor Michael Sorkin runs his own design studio and is the director of the urban design program at City College of New York.

developments built under Title One of the 1949 Federal Housing Act.

Although it would be perverse to criticize Moses for not being more sweeping in his ambitions and activities, his life work was focused on three main areas: parks, roadways, and urban renewal. While Moses's park building was both visionary and refined, his activities on behalf of highways and "slum clearance" were deeply fraught. Moreover, for many critics, this repertoire begs the question of the range of things that these priorities excluded, to the city's detriment, including, most prominently, attention to mass transit as well as other elements of municipal infrastructure—such as, schools, hospitals, sewers, and public housing. Because Moses was so successful in realizing his agenda—and in attracting funds for it—this triplex of priorities both diminished the prospects for other projects and framed for years the core agenda of planning itself.

Good guy, bad guy

As Ballon and Jackson write in the introduction to their book, the seeming discrepancy between the marvelous parks and the nightmare neighborhood destruction is often accounted for by a "two Moses" theory: "the good Moses of the 1930s … associated with a faith in government's ability to act on the public behalf, and the bad Moses of the 1950s," whom they link to "a loss of faith in the government to act wisely, particularly in urban affairs where governmental programs, however well intended, had destructive consequences." Their semiredemptive argument seeks to situate Moses's activities in a wider context in which he appears not as the arch-fiend but as a supernumerary devil reflecting larger trends in public opinion and in shifting availability of national government programs and financing.

In this reading, Moses's clean slate urban renewal is simply a particularly successful extension of a more general consensus about the large-scale excision of "diseased" areas of the city and the displacement of the poor—both a way of retaining middle-class vitality and of exploiting the clearance money flowing from the feds under Title One.



Irresistible offers

Similarly, the highways Moses sought to blast through the city in the later part of his career (and which in their blithe outrageousness planted the seeds of his undoing) are seen as rational, if reflexive, responses to the 90 percent financing available for the Interstates after 1956, which proved suicidally irresistible to so many American cities. And there's the implication that, while Moses may have been unashamedly racist (the evidence is disgustingly abundant), so were lots of people in positions of power.

These arguments have a few problems. For one, Moses's road-building career began long before federal legislation financed its acceleration. Indeed, his very success was formative in creating the culture in which the automobile was seen as the irresistible alpha in the traffic hierarchy and in which public transportation was invisible. To the degree that he held a theory of the city, it was thoroughly Modernist in its priorities, and—like Corbusier and CIAM—Moses saw cities primarily as a conductive medium for speedy circulation.

When the Interstate legislation was being drafted, Moses was adamant that, contrary to initial planning, "the interstates must go right through cities and not around them." That this vision of the city—defined by its regional circulation sinews and their unobstructed movement through town—was in the air for much of the 20th century in no way exonerates Moses. He was not simply the passive recipient of the good news, he was present at the creation.



Moses built recreational facilities, such as the Highbridge Pool (above), in Washington Heights, and bridges like the Marine Parkway Bridge (left) over Rockaway Inlet, but ignored subways and mass transit.

Beware of evasions

The same is true of his roughshod tread on neighborhood ecologies. While Moses may have thought he was pursuing a higher calling to advance the public good, he cannot be judged simply in terms of the durability of his projects, their architectural quality, or even their adaptability to changed circumstances—parks built for the middle class that now find themselves in neighborhoods turned poorer. Nor does it suit to see Moses's work simply as the product of his own authoritarian personality, to freight his project with psychic biography. His aggrandizement of power, his dreadful effects on the lives of so many people, his distortion of the constructive energies of government are not incidental to his "real" legacy; they are his legacy. While the comparison may be hyperbolic, a focus on the architectural—even public—quality of his achievements risks the same kind of distortion as does a view of Mussolini through the filter of Terrgani or the train schedule. How do you create a "balanced" view of someone who was "also" a monster?

Clearly, the contribution of Robert Moses cannot be addressed simply as a question of architecture or planning but must engage issues of culture. The authors of *Robert Moses and the Modern City* have written with balance and insight about a very complicated case, and the catalog of work the book compiles is invaluable and, in many ways, breathtaking. But the risk that Moses poses today is in the conflation of vision and unilateralism. At the level of planning, I am disquieted by the growth of so-called "public-private partnerships," which often represent not simply the abdication of the duty of the government to assure that the common good will contain a full measure of equity in results, but also an end-run around democracy itself, bypassing the hard work of guaranteeing that the voices of all citizens will be heard and acted on with equal weight.

As we daily witness the mayhem in Iraq, the disaster of our attempts to impose our vision of the common good on a body politic that sees the effects of these intentions as both disenfranchising and deadly, it is wise to be wary of any imperious man on a horse who claims to know what's best for us. ■



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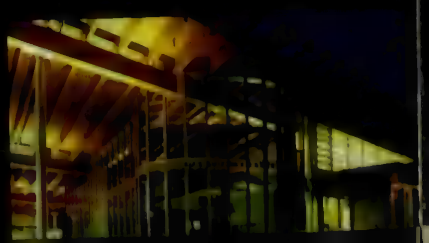
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What happens when architects meet reality TV?

Commentary

By Christopher Hawthorne

One morning last December, a team of producers, cameramen, and sound engineers spent several hours transforming a courtyard at the Los Angeles County Museum of Art (LACMA) into the backdrop for an unlikely marriage between architecture and cable television. The occasion was a competition organized by The History Channel, with help from the American Institute of Architects, called The City of the Future.

Seven teams of local architects, plus one from the Harvard Graduate School of Design, had been asked to imagine how Los Angeles might look in the year 2106. (Chicago and New York hosted similar events the same month.) Each team had one week to prepare its scheme and 15 minutes to explain it to a five-person jury. The jurors—who in L.A. included architect Thom Mayne, former *Dwell* magazine editor Alison Arieff, and the city's new planning director, Gail Goldberg—then had all of 20 minutes to pick a winner.

The contrast between the full century the architects were asked to traverse into the future and the accelerated choreography of the event itself was jarring. So, for that matter, was the buzzer—installed by the organizers in an effort to keep the teams on schedule—that was loud enough to wake the slumbering Pleistocene vertebrates in the La Brea Tar Pits next door to the museum. It worked, though: Even the famously verbose Eric Owen Moss, who won first place in L.A. with a surprisingly straightforward scheme that called for building atop the city's freeways and concrete riverbeds, didn't dare keep talking through the ear-splitting sound.

But perhaps strangest of all was the way the charrette ended. While L.A.'s mayor, Antonio Villaraigosa, was making disappointingly banal comments about his enthusiasm for the future and handing over a $10,000 check (oversize, of course) to Moss, The History Channel crew was busy dismantling all the electronic scaffolding that briefly propped up the 22nd-century L.A.

The channel has no firm plans to turn footage of the event into an actual series. Producers saw the proceedings more as a kind of research—a chance to see how architecture played on screen. That left visitors to the LACMA event with a sense that all of these visions of the future city were simply melting away, magnificent ice-castle cities reduced to puddles that we tracked through on the way back to our cars.

The proposals, many of them surprisingly sophisticated, mixing practical ideas about sustainability and mass transit with elements of Superstudio-style futurism, live on in various ways. Several of the teams have added their schemes to their Web sites, and at least one, a proposal by Hernan Diaz Alonso and Imaginary Forces that earned an honorable mention from the jury, can be found on *YouTube*. (Funny and smart, it is worth seeking out.) And The History Channel pitted the winners in each city's competition against one another in a final round that was decided by online voting, with Chicago's Urban Lab coming out on top over Moss and the New York victor, Architecture Research Office. The channel has also added video of the charrettes to its own Web site at www.history.com.



Architect Sylvia Kwan pits her wiles against a cast of mostly younger and more heavily tattooed contestants on *Survivor*, which takes place this season on the island of Fiji. Will running her own firm for 25 years help her win or hurt her?

But the degree to which the participating firms—all of them talented, none desperate for work—were willing to endure this Pavlovian exercise in exchange for a little free publicity was surprising. In other words, if the charrette represented a marriage between architecture and pop culture, it looked about as stable as the Britney-KFed union. If you exchange vows in the middle of a Klieg-lit Potemkin village, after all, it is probably only a matter of time before the relationship falls apart.

As it happens, the CBS show *Survivor*, which helped kick off the reality-TV craze seven years ago, has an architect among its bleached-teeth, Pilates-toned castaways for the first time this season. Sylvia Kwan, 52, runs a successful San Francisco firm, Kwan Henmi Architects, with her husband. She was recruited for the show by a pair of CBS producers who spotted her at Monsoon restaurant in Santa Monica, where she and her husband were hosting an 18th birthday party for their son, a freshman at nearby Loyola Marymount University.

Producers of the show, which is taking place this season in Fiji—"a place once known for its cannibalism," the grave voice-over reminds us—wasted no time in taking advantage of Kwan's presence. On the first episode, broadcast on February 8, Jeff Probst, the host, flew over the contestants in a biplane and dropped into their midst a wooden crate that contained … a set of blueprints. There was also a frayed-edged, X-marks-the-spot-style map leading the castaways to a supply of hammers, nails, two-by-fours, shingles, and even a toilet seat. I kept looking for evidence of a product-placement deal with Home Depot, but none materialized.

"I could not believe my eyes," Kwan recalled in a phone interview. "I stood there and unrolled an entire

Christopher Hawthorne, architecture critic for the Los Angeles Times, *last wrote for* RECORD *on emerging architects in L.A., in May 2006.*

set of plans. I was expecting that we'd do what the contestants usually do, which is build a couple of lean-tos."

Kwan helped the other contestants construct a rather elaborate shelter for themselves, which of course put a large target on her back. Too much intelligence too nakedly shown is about as dangerous on *Survivor* as it is in a presidential campaign these days. While the group was hammering together the shelter, this exchange occurred:

Kwan (inspecting a post): "I feel that this guy is a little bit askew, but, oh well."

Young, tattooed contestant from Boston, known as "Rocky," who is either dumb or playing dumb or, most likely, a little of both: "What? What's *ascoot* mean?"

Kwan: "Askew."

Rocky: "Huh?"

Kwan: "A-s-k-e-w. It's an architectural term. It means not orthogonal."

Rocky: "There's another big word."

Whether or not askew is really "an architectural term" is a question for another day; in any event, Kwan's leadership on the shelter job made her stick out like—well, a 52-year-old architect surrounded by a bunch of aspiring B-listers in their 20s. No matter that there was no actual architecture going on, and that Kwan had simply acted as lead contractor in executing a building designed by some anonymous figure hired by CBS. When Probst told the 19 contestants that they were going to be split into two tribes of nine, with one person left to spend the night alone, Kwan was easy to single out.

"So it sounds like, Sylvia, you really stepped up to be the leader," Probst said. "Does that ring true to everybody here? Nobody disagrees with that?"

With that Sylvia was asked to divide the group into two tribes and then was sent to the dreaded Exile Island. She spent the night in a treehouse; with its thatched roof and shrunken heads on spikes, it might have been designed by Colonel Kurtz & Associates.

Survivor has long perfected its brand of primitive chic, which is best seen in the one piece of architecture that makes an appearance every season: the setting for Tribal Council, which is usually circular, open-air, and lit by candles and torches—half Robinson Crusoe, half Westin Maui. As an Exile Island resident, Kwan was given immunity the first week, but it will be fascinating to watch, as the season progresses, whether the initiative and expertise she's already shown will get her quickly eliminated. To be honest, it will be a pleasant surprise if it doesn't happen right away.

If The History Channel competition and Kwan's presence on *Survivor* teach us anything about the collision of architecture and



Teams from EDAW/DMJM Design/DMJM H&N/AECOM (left) and Eric Owen Moss (right) develop competing visions of L.A. in 2106 for The History Channel.

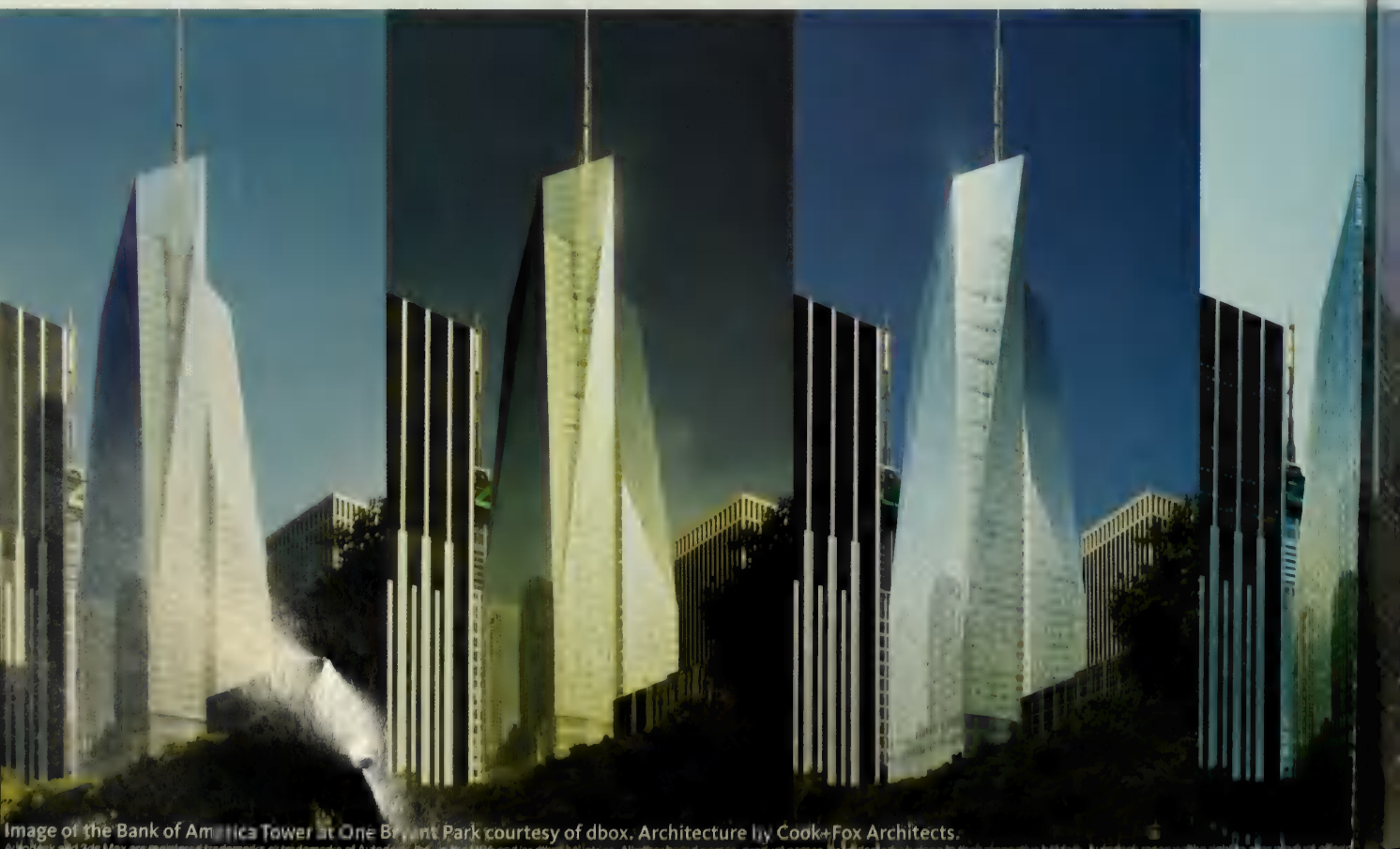
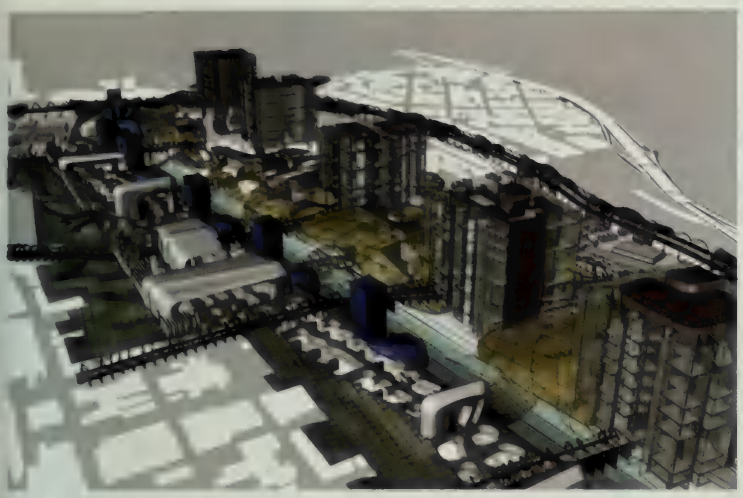


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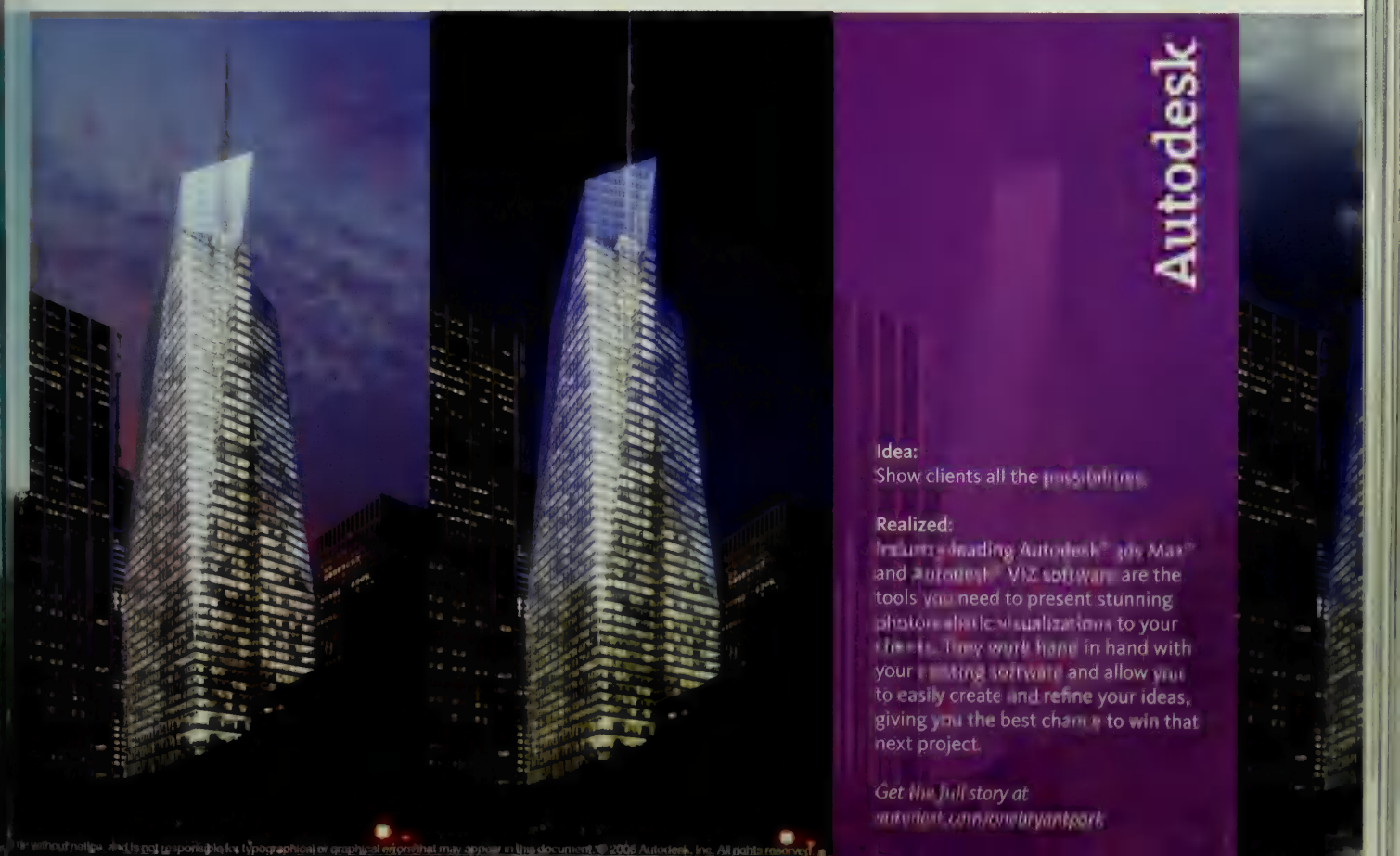
Eric Owen Moss's winning design calls for building atop the city's freeways.

television, it is probably that the profession should count itself lucky that so far contact between the two has been relatively limited. Architects might lament that so far there has been no reality-TV show to illuminate their field the way *Top Chef* has done with cooking or *Project Runway* with fashion. After all, while magazines and newspapers have become downright obsessed with architecture in the past decade, television has largely kept its distance.

But maybe architects should be happy with the occasional hour on *Charlie Rose* or the existence of a handful of sitcom characters, like Ted on the CBS show *How I Met Your Mother*, for whom being an architect mostly means only that they are coated with a sheen, however thin, of smarts and gentility. After all, consider the new Bravo series *Top Design*, which in a few short weeks on the air has already painted the world of interior design with the broadest of brushes, somehow managing to seem homophobic and homophilic at the same time. That show offers a reminder of how seeing your own professional world through a television screen is rarely an encouraging sight, let alone an accurate or an ennobling one.

Certainly we learned that after the master-plan competition at Ground Zero, which was the last time architects appeared on television programs in significant numbers. The highlight (or maybe lowlight) of that publicity whirlwind was undoubtedly the December morning in 2003 when Daniel Libeskind and David Childs appeared side-by-side on *The Today Show* in the middle of their struggle for control of the Freedom Tower. When Katie Couric asked about reports that the two architects weren't getting along, Childs patted Libeskind on the knee, called him "Danny," and assured Couric that their relationship was "spectacular."

As I wrote in *Slate* later that day, Child's word choice couldn't have been more apt. And it remains a word to remember as we consider The History Channel competition, Kwan's experience on *Survivor*, and the way producers are slowly beginning to circle the world of architecture. What those shows—and their viewers—are looking for is pure spectacle, which is neither good nor bad but simply the coin of the television realm. Any architect brave enough to chase pop-culture fame as opposed to mere, lower-wattage architectural celebrity would be wise to keep that in mind. ■



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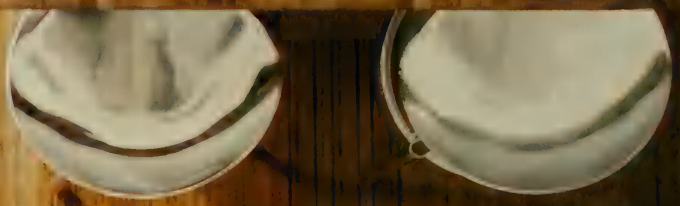
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Blending in and standing out in architecture

Books

The Architecture of Happiness, *by Alain de Botton. New York: Pantheon Books, 2006, 288 pages, $25.*



Reading Alain de Botton's attempt to discover why some buildings bolster our mood and others can cause misery is like listening to a well-read, well-spoken dinner companion who seems to know something about everything. De Botton's previous titles include *Status Anxiety, Essays in Love, The Consolations of Philosophy, The Art of Travel*, and *How Proust Can Change Your Life*.

As specialists in architecture, we may be skeptical of de Botton's dilettantism. In this equal parts psychological investigation and aesthetic treatise, some of de Botton's statements are oversimplifications. Is it true that "no one before" the 18th-century builder of Strawberry Hill, Horace Walpole, "had ever attempted to apply the ecclesiastical idiom of the Middle Ages to a domestic setting"? No, for the idiom had been used for houses (Penshurst Place, in England; Ca' d'Oro, in Venice) almost as long and often as it had for churches. And we may object to some of his descriptions, though delightfully entertaining. Here he is on Le Corbusier's Villa Savoye: "It seems that the house may be no more than a temporary visitor and that its rooftop equipment could at any point receive a signal that would lead it to fire its concealed engines and rise slowly over the surrounding trees and historically styled villas on the beginning of a long journey home to a remote galaxy." At other times, his presentation of a perfectly sound idea, such as "the notion of buildings that speak" is marred by his apparent assumption that he has invented it.

But de Botton has not only a charming manner, but substance beneath it. His ideas, if sometimes cranky, are often admirably independent, refreshing, and even profound. This, for example, protesting against star architects: "The architects who benefit us most may be those generous enough to lay aside their claims to genius in order to devote themselves to assembling graceful but predominantly unoriginal boxes. Architecture should have the confidence and the kindness to be a little boring." And later in the book: "The places we call beautiful are … environments that satisfy needs we never consciously knew we even had." *Stanley Abercrombie*

Camouflage, *by Neil Leach. Cambridge: MIT Press, 2006, 248 pages, $25.*

When we think of camouflage, our thoughts go first to military apparel designed to hide the soldier from danger in battle. But as fashion statements, such camouflage makes the user stand out on the street. For architect and theorist Neil Leach, camouflage is a deeply ingrained human process. "We human beings are governed by the urge to conform and blend in with our surroundings … We have a chameleonlike urge to adapt, and, given the increasing mobility of contemporary life, we are constantly having to do so." *Camouflage* the book explores this process in the course of the author's development of a theory of aesthetics.

Camouflage is not so much about concealment as it is about a desire to feel connected, to adjust, assimilate, and engage in a mediation between ourselves and our



environment. The book's argument is solidly constructed upon a foundation of philosophy, psychoanalysis, and especially, cultural theory, drawing from a pantheon that includes Adorno, Bataille, Bhaba, Benjamin, Deleuze, Derrida, Freud, Heidegger, and Marcuse. Though accessible, *Camouflage* requires an engaged effort on the part of the reader.

By the author's own admission, "*Camouflage* is addressed, perhaps, less to architecture itself than to the subjective processes by which human beings experience architecture." While scores of thinkers are referenced in the index, only four architects are noted, and Adolf Loos is the only one mentioned more than in passing. And no works of architecture are considered. Nevertheless, the subtext about environments has implications for architecture. For the author, "the concept of camouflage points toward the important social role of the aesthetic domain as a means of reinserting the individual within society."

This exquisitely designed publication is itself an aesthetic domain, understated and carefully considered. Its cover is subtly seductive. All illustrations are of a young women adapting, assimilating, and blending into various environments. They are hauntingly beautiful and are important to the craft and message of the book, yet they are also mysterious. All we are told is that they are the work of "the late Francesca Woodman." One suspects that there is further meaning that is hidden—perhaps through camouflage. *John A. Loomis, FAIA*

Noise Orders: Jazz Improvisation, and Architecture, *by David P. Brown, Minneapolis: University of Minnesota Press, 159 pages, $60.*

Type the words "architecture" and "jazz" in an Internet search engine and you might be surprised to discover numerous links to sites about software design. But the links between jazz and architecture that concern David P. Brown, associate professor of architecture at the University of Illinois in Chicago, are between modern architecture and urbanism, and jazz, the improvised



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musical form. This is an ambitious undertaking, particularly given the myriad contested definitions of *jazz*



and *architecture*, so Brown's book deserves attention. Although flawed, it is a perfect example of G.K. Chesterton's "a good bad book."

An early draft of a chapter appeared in *Sites of Memory: Perspectives on Architecture and Race*, edited by Craig E. Barton (2001). That essay demonstrated Brown's erudite familiarity with the theoretical underpinning of Chicago's avant-garde jazz scene. How this music connected to Chicago's architecture seemed vague. In the finished book, there is further evidence that Brown has a sweeping grasp of complex jazz theory—and can make some useful associations when he allows himself to transition from jazz theory to architectural practice. Linking the cascading, swooping piano runs of Cecil Taylor's improvisations to the flowing design of Santiago Calatrava's Bocde Roda Bridge is one stunning example.

But Brown's prose smacks of Postmodern academese. Grand theories abound, but specific, well-documented examples of architects thinking in a jazzy, fluid, less hierarchical and rule-bound way are rare. About a dozen poorly reproduced black-and-white architectural drawings and photographs punctuate this text. Among the major architects who have acknowledged their indebtedness to jazz, how can Max Bond and Frank Gehry go unmentioned, and Walter Hood be given cursory acknowledgement? But as jazz great Fats Waller crooned, "This will have to do, until the right one comes along." *Norman Weinstein*

Peter Smithson: Conversations with Students, *edited by Catherine Spellman and Karl Unglaub. New York: Princeton Architectural Press, 2006, 96 pages, $18.*

In many ways this is a sweetheart of a little book. Just two years before his death in 2003, Peter Smithson participated in a series of conversations with architecture students at Arizona State University (ASU) and delivered a brief lecture, "The Response to the Glut," which was followed by questions from the audience. Smithson's responses, his lecture, and the conversations are assembled here, along with an essay by editors Karl Unglaub, of Barcelona's EMBT Architects, and



Catherine Spellman, a professor at ASU. The book, part of the series Conversations with Students that has featured Rem Koolhaas, Louis Kahn, Santiago Calatrava, and others, functions as a primer on its subject. It familiarizes the reader with the eminence grise of postwar British architecture while looking back over his life and the work he produced in the course of a nearly six-decade career.

Indeed, the book is almost a survey of late Modernism and its malcontents, as Smithson revisits the genesis and aftermath of Team 10, the New Brutalism, and his longtime collaboration with his wife, Alison. Spellman and Unglaub fill in the gaps with extensive foot-



notes, but would have done Smithson a favor by correcting a few errors and misspellings in the text. For example, in the otherwise engaging essay "10 Richter Scale," they note that Smithson's friend and fellow Independent Group member Eduardo Paolozzi traipsed about the London neighborhood of "Bloomsberry." Nor do the editors check the very ruminative Smithson, whose train of thought can wend its way, in a few short lines, from the influence of graphs to the ashtrays of Charles Rennie Mackintosh.

On the other hand, Peter and Alison Smithson's writing was always characterized by a certain expansive airiness, as was true of their architecture, with its mystery, its voids, and elisions. In that regard, the editors have remained true to the Smithson spirit, and their book is a fitting tribute.
Ian Volner

Romantic Modernist: The Life and Work of Norman Jaffe Architect 1932–1993, *by Alistair Gordon. New York: Monacelli Press, 2006, 240 pages, $50.*

Norman Jaffe was an architect with abundant talent, easy charm, matinee-idol looks, and a turbulent spirit. One August morning in 1993, he piled his clothes neatly on a beach and disappeared forever into the ocean. With this first biography of Jaffe, Alistair Gordon tries to understand him and give him his due.

The author follows Jaffe from his beginnings in 1932, as the son of poor Jewish immigrants in Chicago; to his departure for Seattle at 15, where he lived with relatives; to military service in Japan during the Korean War; to architecture school in Chicago and U.C. Berkeley; to employment with Joseph Esherick, exponent of the warm, woodsy Bay Area style; to relocation in New York, where Jaffe worked for Skidmore, Owings & Merrill and then for Philip Johnson. In 1964, when his Berkowitz House in Upstate New York was published in *Record Houses*, Jaffe opened an office in Manhattan, expecting a flood of commissions. They failed to materialize. At the



same time, his wife (whom he had abandoned in California) was killed in an auto accident, and Jaffe assumed custody of their son.

Believing that domestic architecture dealt in dreams and stood at the core of the American experience, Jaffe slowly built a reputation based on the warmth of his Modern houses for artists and filmmakers on the East End of Long Island. Influenced by Esherick, Wright, and Sullivan, Jaffe's unbroken shingled facades were topped by skylights; his steeply sloping, mono-pitched roofs sometimes touched the ground at one end while soaring as high as codes permitted at the other. As Jaffe became court architect to some of the biggest egos in the New York area, his name became a brand for conspicuous luxury. In the early '80s, he fled to an ashram in India, and on his return sought meaning in nonresidential work. There were a couple of high-rises in Manhattan, a couple of planned communities on Long Island, and the Gates of the Grove Synagogue in East Hampton, New York, completed four years before his death. Outwardly, the synagogue is a modest shingled form; its interior, however, is breathtaking. Hand-hewn in cedar and skylit, it uses every possible device to "pull you upward out of your shoes," Jaffe once told me. It was the jewel in the crown of his turbulent career.
Andrea Oppenheimer Dean



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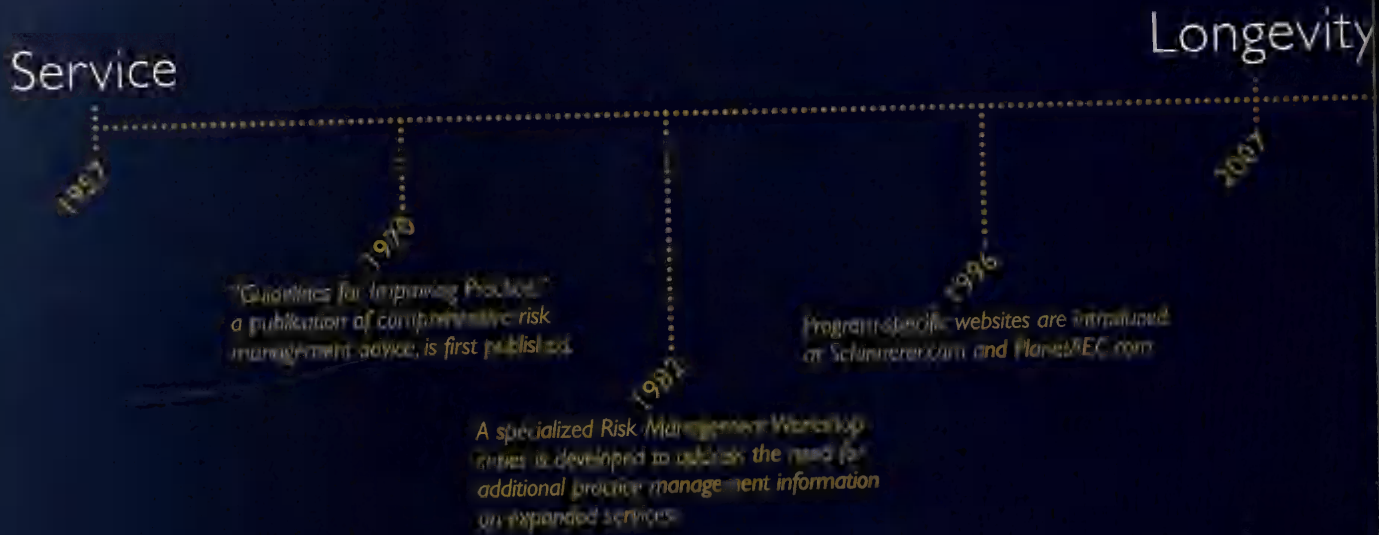
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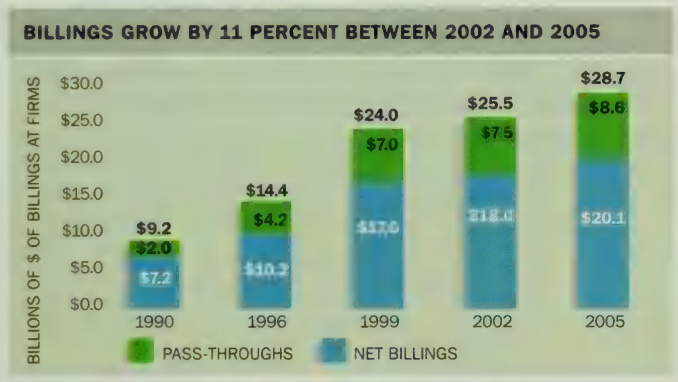
New AIA firm survey indicates that while business is good, the profession itself changes slowly

Practice Matters

By Andrew Pressman, FAIA

The just-released AIA firm survey, *The Business of Architecture*, is essential reading for the profession's observers because it is the most complete benchmarking of trends such as firm size, economy, project delivery methods, and many other practice concerns. But after reading the latest edition, one expert opined that it could also have been titled *Business as Usual*, because many long-standing trends changed so subtly in the three years since the last report that it is very hard to say whether those shifts indicate real changes or the temporary bumps and dips experienced by all professions. On the other hand, in the newest report, authors Kermit Baker, Hon. AIA, James Chu, and Jennifer Riskus have begun testing two of the most remarkable shifts in the profession's behavior: the rapid adoption of green design and building information modeling (BIM). These weren't even mentioned in the last survey, but they'll only be gaining ground in the future.

No matter what you call the survey, it tells us that business is good. Firm billings increased 11 percent between 2002 and 2005, to reach $28.7 billion annually. That contrasts nicely with 2002, when nonresidential billings were hardly growing, and the profession was being carried by its residential work. The survey notes, "According to U.S. Department of Labor figures, payroll employment at architecture firms increased more than 2 percent in 2004, almost 4 percent in 2005, and is on pace to increase close to 5 percent in 2006." In terms of proportion of firm activity within this growth profile, the residential sector has increased over 5.5 percent since the 2002 survey, to 17.7 percent of firm billings, and about 60 percent of that is in multifamily. Institutional still takes about 50 percent of the total share.



BILLINGS GROW BY 11 PERCENT BETWEEN 2002 AND 2005

The big challenge for firms is recruiting appropriate talent to support all that growth, and finding and retaining the best people is clearly an ongoing strategic priority. This is also boosting wages. One short-term and perhaps less-than-ideal solution is outsourcing: Just over one third of firms outsource work frequently or when workloads are heavy. Only 8 percent of those firms say they send work offshore.

Firm matters

One interesting trend is that the number of sole practitioners declined 9 percent since 2002, while two-to-four-person firms increased by the same number, indicating perhaps that sole practitioners are partnering up. The report indicates that, "Architecture firms have remained predominantly smaller practices.... the percentage of firms with five or more employees remained fairly constant in recent years." Moreover, small firms are still dominant, with 96 percent of all offices, yet large offices (50 or more employees) control almost 42 percent of all staff, and almost 52 percent of all billings. Predictably, the largest firms, according to the survey, also have much higher average net billing per employee—$143,000 in firms with 50 or more employees, while firms with fewer than 20 average $83,000. The survey implies that the larger firms' investment in advanced technology allows their staff to be more productive, although it seems likely that many other factors influence these sums.

Sadly, women and minorities are still grossly underrepresented in firms, but there has been some incremental improvement. Women now compose 26 percent of all architecture staff; minorities, 16 percent. These numbers have been growing about 1 percent per year since 1999.

The digital domain

Small- and medium-size firms (49 or fewer employees) that are nimble and can leverage technology will survive and prosper, and may even be competitive with their larger counterparts, yet many are hesitant to make the investment in technology needed to improve productivity

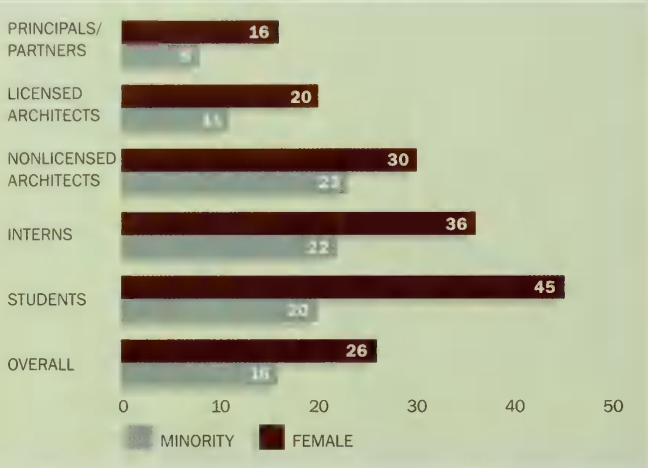


NET BILLINGS AVERAGE $84,000 PER EMPLOYEE

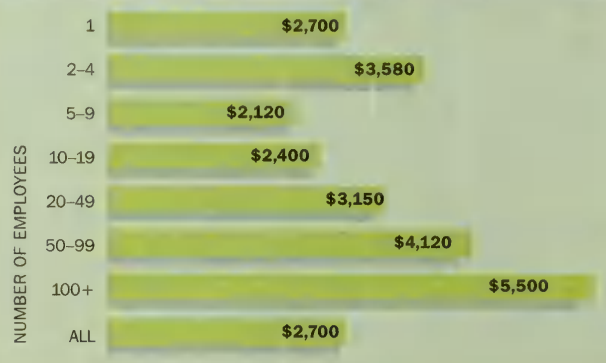
Contributing editor Andrew Pressman, FAIA, is a practicing architect in Washington, D.C., and the author of Professional Practice 101.

OVERALL, WOMEN MAKE UP 26 PERCENT OF ALL ARCHITECTURE STAFF; MINORITIES ACCOUNT FOR 16 PERCENT

PERCENT OF WOMEN AND RACIAL/ETHNIC MINORITIES BY POSITION AT FIRMS



FIRMS SPENT AN AVERAGE OF $2,700 PER EMPLOYEE ON IT



and performance. The report states that overall, few firms use BIM software (about 10 percent are using it for billable work), and most of those are the larger firms. According to James P. Cramer, Hon. AIA, chairman and C.E.O. of the Greenway Group, "Medium-size firms are not going to be competitive nor innovative until they invest at least $5,000 per employee in IT, and that means adding BIM purchases right now. It is puzzling to see in the AIA survey that firms spent only an average of $2,700 per employee on IT expenses."

Web sites are an essential practice tool for recruiting staff, marketing, public relations, linking branch offices, and communicating with clients [see Practice Matters, RECORD, February 2007, page 57]. One curious finding, noted by Cramer, is that a whopping 40 percent of the firms that replied to the survey do not have Web sites.

It's not easy being green

By any definition today, an excellent building design must include a range of green, sustainable, and environmentally sensitive attributes. The trend is only now catching on, since only about one third of all nonresidential projects initiated in 2005 had "green features." And a mere quarter of firms designing projects in the residential sector characterized them as green. On average, 13 percent of firms have LEED-certified specialists.

Sustainable design goes to the heart of our social and environmental responsibilities as professionals. One of the challenges that architects face is convincing some clients that excellent (or even good) building performance should be a priority and an integral part of the design process from a project's inception. The data in the AIA firm survey may, however, be a great resource to assist in developing a persuasive argument for promoting the trend in green design.

Project delivery

An expected trend regarding project delivery, noted by Mark Zweig, founder of the AEC management consulting firm ZweigWhite, is that even though traditional design-bid-build is still the most dominant method—accounting for 60 percent of firm billings—it is slowly being superceded by other methods. It has declined 5 percent since 2002. While design-build receives much attention as the delivery method that will replace design-bid-build, it was construction-management-at-risk that made the greatest gains, increasing from 6.9 percent to 10 percent. Conventional construction-management accounts for 13.5 percent, and contractor-led design-build grabs about 9.6 percent. For the first time, architect-led design-build has been called out separately, and represented a scant 3.9 percent of all firm billings.

The idea that design-bid-build is being supplanted by other delivery methods has implications for development of specific skill sets for future architects and, therefore, for architectural education. This paradigm shift, according to David W. Hinson, AIA, chair of the architecture program at Auburn University, in Alabama, suggests that the construction phase will be just as collaborative as the design phases. "The importance of working in teams will extend dramatically deeper into the project timeline," says Hinson. The art of collaborating and negotiating must be integrated into courses across the curriculum, including design studio, architectural technology, and professional practice.

Data in context

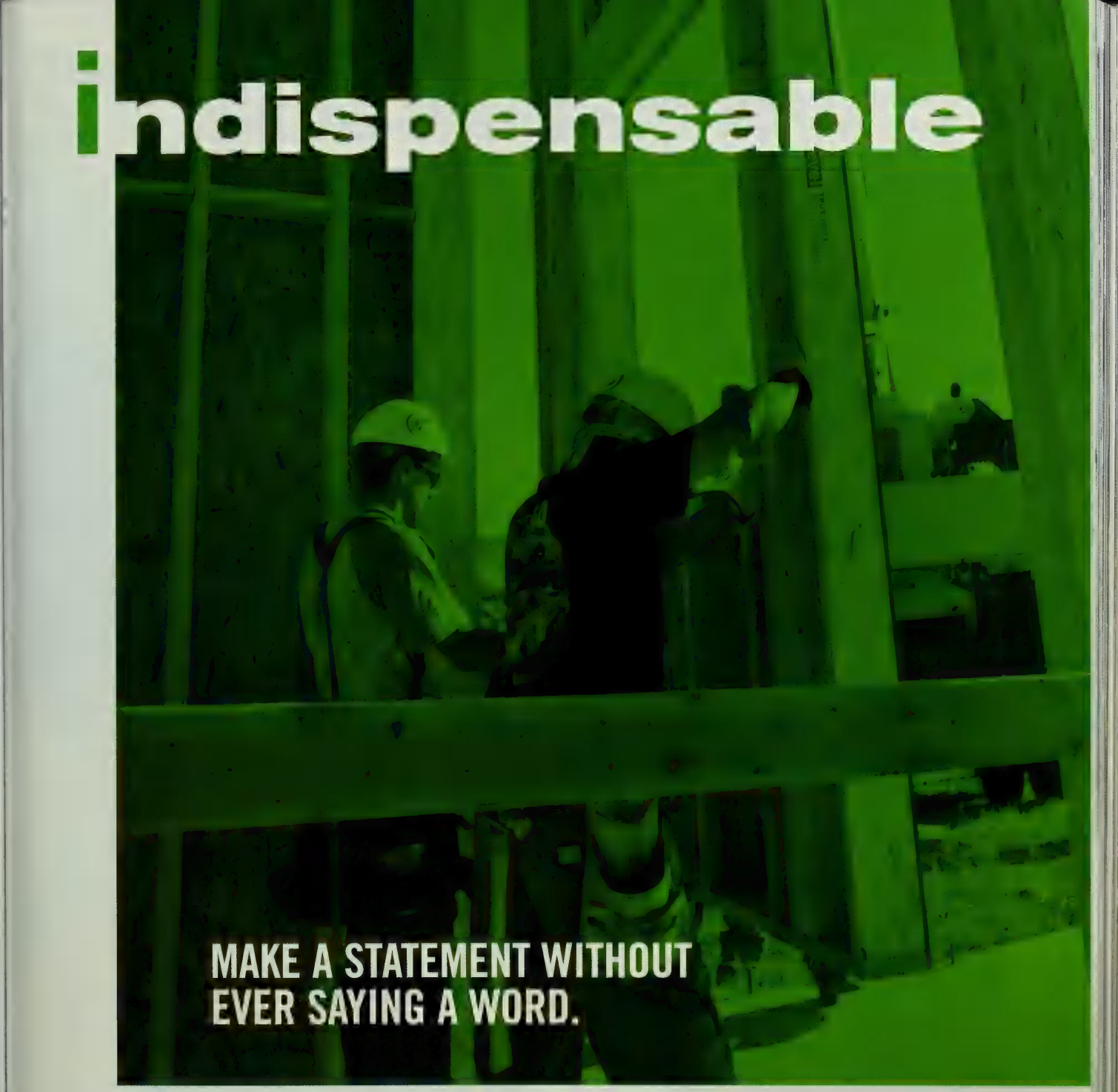
In interpreting the firm survey, it is important to place the data in the context of one's own practice goals and vision, which may indeed aspire to achieve something different from the representative numbers ("benchmarks and best practices") in the survey. As noted in the survey's appendix, survey results are based on 2,606 responses (a 22 percent response rate) from domestic offices of U.S. architecture firms owned by AIA members. The survey data was weighted to accurately represent all office sizes in the universe of domestic firms noted above. Jean R. Valence, Hon. AIA, vice president and director of strategic development at Symmes Maini & McKee Associates, sums up the consensus among several firm principals and management consultants: "While there are no great revelations in the findings, the amount of effort that the AIA invests in composing a valid sample for this survey is laudable." ■

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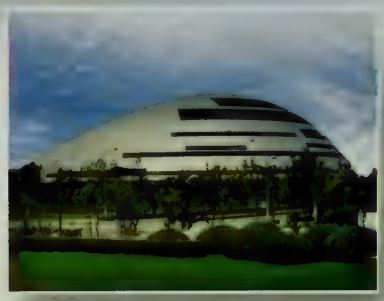
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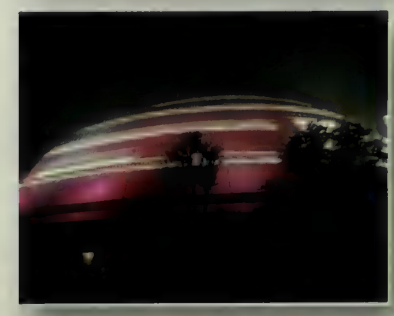
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Trade Show Review Bologna • Cersaie

With more than 1,000 exhibitors in 2006, Cersaie showcased a dizzying array of tiles with trends toward historically sourced floral prints, kitschy patterns, and gleaming metallic finishes. *Russell Fortmeyer*

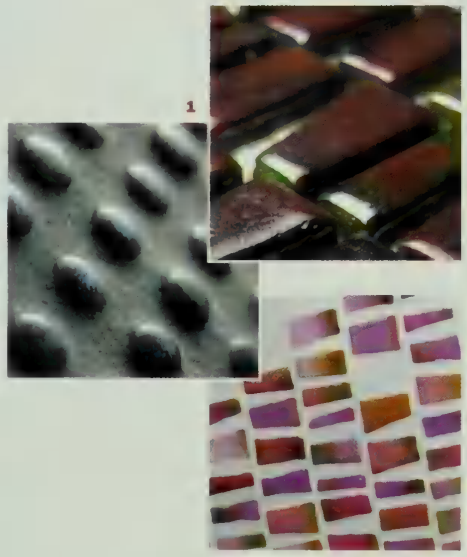
1 Connect the dots Lite-Brite patterns are called to mind in Ceramica di Treviso's Silk stucco options (near right), while designer Toto Dolfato has created a ceramic mosaic look for the company's TrevisoProgetta's Murazzi line, shown with and without grout (far right top and bottom). Murazzi is available in a wide range of colors in a standard 12"-square grid. Ceramica di Treviso, Villorba, Italy. www.ceramicaditreviso.it **CIRCLE 200**

2 Patterns, please The Live collection from Ceramiche Provenza injects the sensibilities of 19th-century Victorian wallpaper into tile, with subtle hues that thankfully avoid the gloomy tonalities of the period. Tiles are available in 23"- or 16"-square or 23" x 16" sizes, and in muted green and blue colors. Ceramiche Provenza, Modena, Italy. www.ceramicheprovenza.com **CIRCLE 201**

3 Finding the one The Enigma line's punch-card effect brings texture to an otherwise subtle surface. This *Matrix*-like pattern is available in neutral colors and in various sizes, including 20"-square and 26"-square tiles. Monocibec, Sassuolo, Italy. www.monocibec.it **CIRCLE 202**

4 Crazy daisies Bisazza's Decori collection, shown in the Daisy option, incorporates a laser-cut floral scheme in glass chip slabs that manage to be both retro kitschy and decidedly modern in a larger-than-life scale. The line is available in black-on-white, red-on-white, or white-on-blue (shown), and in 12"-square and 24"-square sizes. A 3/16" thickness is suitable for floors. Bisazza, New York City. www.bisazza.com **CIRCLE 203**

5 Steeling beauty Fioranese's Steelwork line brings the sheen of metal to the durability of ceramic tile. The tile's metallic artificiality is extremely difficult to detect, making it a great substitute for floors and walls that can't support a slab of Cor-Ten. Available in a variety of tinted polishes, the tiles come in 4" x 24", 12" x 24", and 24"-square sizes. Fioranese, Fiorana Modenese, Italy. www.fioranese.it **CIRCLE 204**


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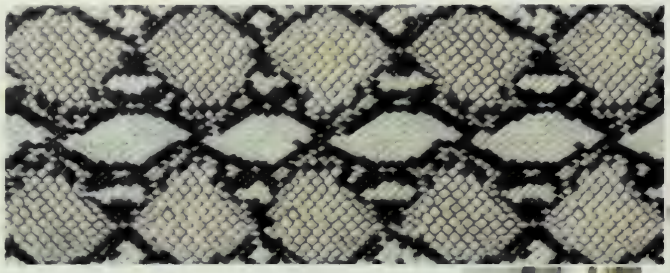

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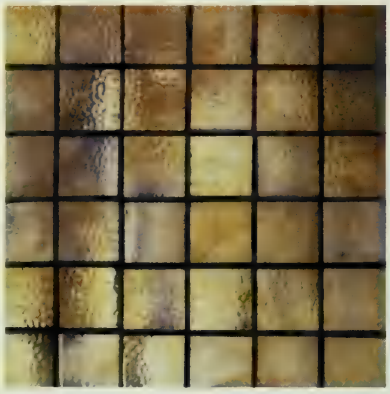
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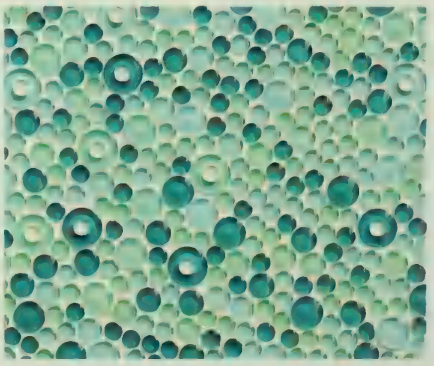
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6 Animal instincts Settecento's Animalier line, featuring snakeskin and leopard prints in white, black, and yellow, attests to the continuing popularity of animal prints at the show. A high kitsch-factor suggests the line should be used sparingly outside of a Las Vegas hotel room. Settecento Valtresinaro, Spezzano, Italy. www.settecento.com **CIRCLE 205**

7 Solid gold Casa Mood's extruded ceramic Maiolica series brings an understated glitz to kitchens bathrooms with white, black, silver, and gold (shown) color options. Tiles are available in 12"-square mosaics or individual sizes, such as 3" x 6" and the 6"-square tiles shown here. This series is part of a new comprehensive collection debuting throughout 2007. Casa Mood, Alpharetta, Ga. www.casamood.com **CIRCLE 206**

8 Blowing bubbles Like a bowl of Fruit Loops, Giaretta Italia's Cristall'o collection of glass mosaics transforms any surface into a playfully bubbling color field. Available in minty green (shown), blue-green, lavender-purple, black-white, and yellow-orange. Giaretta Italia, Pove del Grappa, Italy. www.giarettaitalia.it **CIRCLE 207**

9 Clean lines The intense, linear texture in Marazzi's Sahara collection lends Minimalist architectural gravitas to any space. Available in gray, beige, and black in 12" x 24" and 24"-square sizes. Marazzi, Sunnyvale, Tex. www.marazzitile.com **CIRCLE 208**

10 Never needs watering Sicis's self-explanatory glass mosaic Flower Power collection exemplifies one of the more over-the-top design statements at Cersaie. There are multiple flower schemes available, in room-defining 47"-square and 60" x 115" sizes. Sicis, New York City. www.sicis.com **CIRCLE 209**

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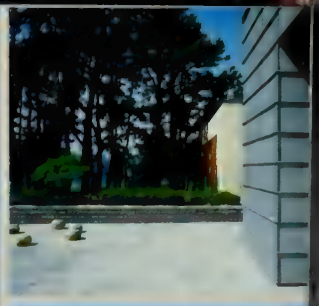
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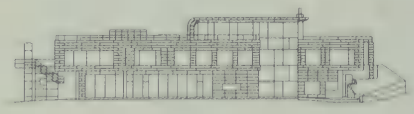


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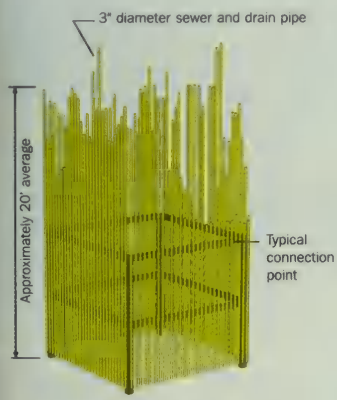
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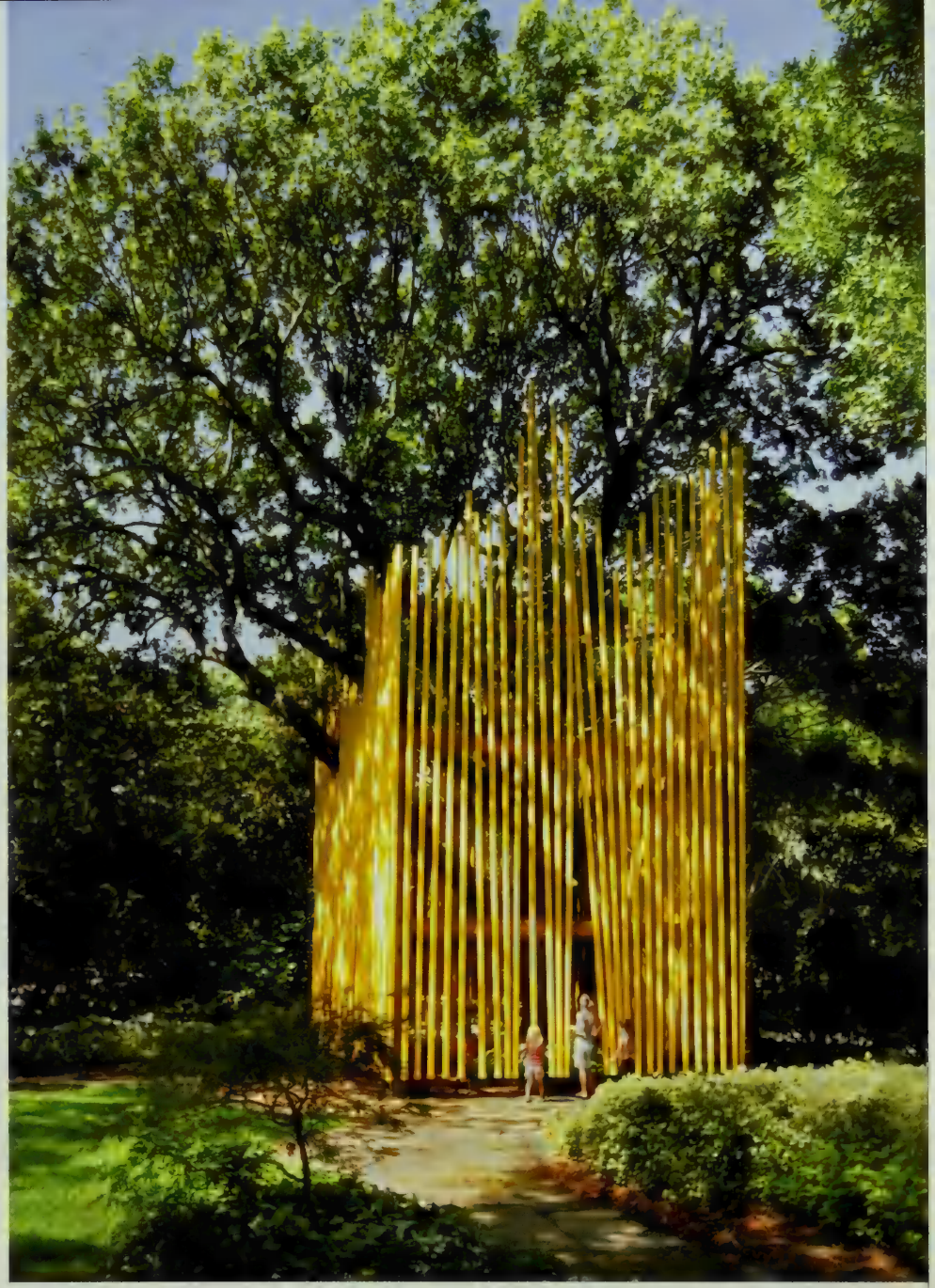
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Snapshot





Redefining the backyard tree house

By Beth Broome

Jay Smith's Square of Circles tree house incorporated simple, off-the-shelf materials and was built by a small crew of friends, but that's about where the similarity to the iconic, American backyard building type ends.

From June through December of last year, Smith's project was on view at the Dallas Arboretum as part of its *Ultimate Tree Houses* exhibition, a collection of 13 designs selected from entries by local architects. The designers, who were involved in choosing the trees for their creations, were each awarded a $2,500 stipend for construction. The guidelines stipulated that the structure be ADA accessible and interactive, and that it not attach to the tree.

For Smith, a young architect practicing with the Dallas firm Shipley Architects, practical concerns were of paramount importance. Not only were the constraints strict and the budget slim (though he chipped in his own funds), but the architects were given just four days to construct their projects on-site. Of the handful of conceptual ideas Smith came up with, the one shown here was the most buildable. "The massing responds to the size of the tree,"

Snapshot

Smith says, "but I wanted the elements to be more on a human scale." In search of the right vertical building material, he combed the local hardware stores and came up with cellular core PVC pipe, typically used for sewage and drainage lines.

One hundred eight vertical pipes were bolt-hinged to a 16-foot-square frame of pine beams and columns braced with steel tension cable. The pipes hung a foot over the ground and terminated just under the branches, the tallest rising 34 feet. "I made the plan," says Smith, "and the tree dictated the elevations." Bolted only to the top beam, the pipes could be pivoted by visitors entering the space. The tree's canopy provided a majestic ceiling.

Smith constructed much of the project in a warehouse and then assembled on-site with about a dozen friends and family, including his father and girlfriend. While the structure was not physically attached to the red oak it shrouded, it was thoughtfully connected to its site and subject in many other ways. The bright yellow that Smith chose to paint the pipes—originally striving for a contrasting, man-made look—soon proved to be an anchoring force, echoing and complementing the hues of the leaves and surrounding flowers as they changed over the seasons.

Perhaps in the interest of preserving their goodwill, Smith chose not to re-recruit the construction team to help him disassemble. Instead, he posted the tree house, which won awards from the Dallas AIA and the Texas Society of Architects, for sale on eBay. The result? A win-win-win situation: Smith washed his hands of the removal process, proceeds went to the American Cancer Society, and one happy bidder has given a new life to Square of Circles in his Dallas-area backyard. ■

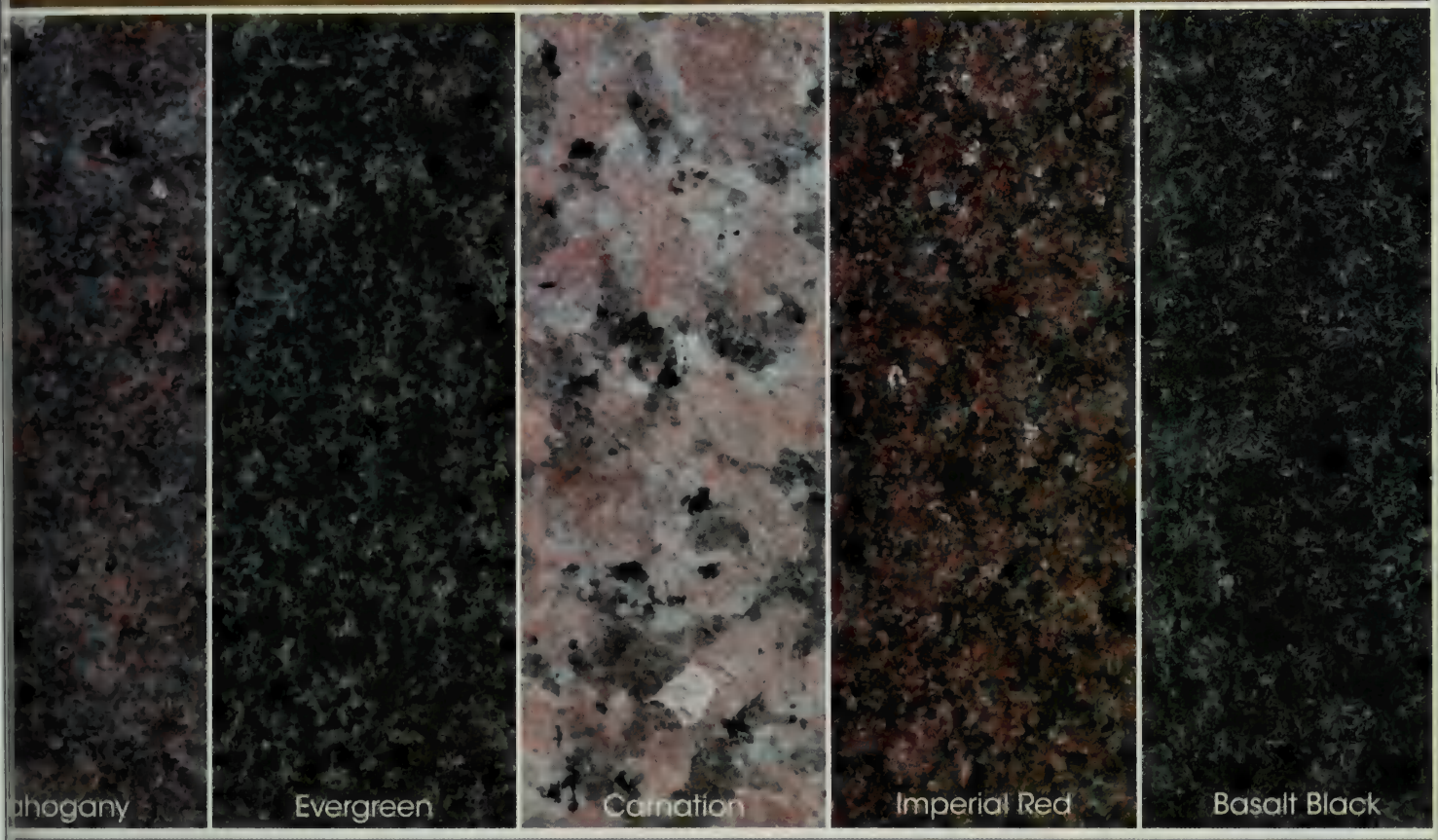




The Square of Circles tree house, a temporary installation, paid homage to one of the Dallas Arboretum's red oaks. The tree's broad canopy served as a ceiling to the structure, which did not connect at any point to the tree (above). Yellow-painted PVC pipes bolted to a wood frame could be pivoted to gain entry into the space (left).

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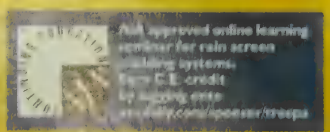
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William McDonough, FAIA



On the Next Industrial Revolution

Interviewed
by Robert Ivy, FAIA
Edited by Andrea Dean





Projects completed early in McDonough's career include the Warsaw Tower, in Poland, the first project to propose planting trees to offset carbon emissions (far left). McDonough designed three passive solar homes in Ireland as part of his senior thesis at Yale School of Architecture (left).

Born in Tokyo, raised in Hong Kong, and trained in the U.S. at Dartmouth and Yale, 56-year-old William McDonough founded William McDonough + Partners, Architecture and Community Design (WM+P) in 1981. The 30-person firm translates cradle-to-cradle ideas into structures that make oxygen, store carbon, and produce more energy than they consume. After completing the Environmental Defense Fund's New York headquarters in 1984, McDonough sold his ideas to such corporations as Gap Inc., for which WM+P designed a 1997 grass-roofed corporate campus, and the Ford Motor Company, for which it is performing a 20-year, $2 billion reengineering of the River Rouge Plant in Dearborn, Michigan. In 1994, when McDonough started a stint as dean of architecture at the University of Virginia, he moved his firms from New York to Charlottesville, where they remain today. In 1996, McDonough became the first and only individual recipient of the Presidential Award for Sustainable Development. His work takes him to Europe, Canada, and China, where he is helping draw up infrastructure plans in six new city districts.

William McDonough foresees what he calls "the next industrial revolution," in which environmentally driven product design and manufacturing processes would usher in an era of good design and abundance. Reducing the use of natural resources will slow pollution and depletion, so what's needed are new production strategies that eliminate waste altogether. He sees a future in which products can be repeatedly recycled and upgraded ("upcycled," he calls it). This kind of environmentalism, McDonough argues, will be good for business and job retention. McDonough Braungart Design Chemistry (MBDC), a partnership formed with the German chemist Michael Braungart, helps clients develop eco-efficient strategies and products. McDonough and Braungart's book, Cradle to Cradle *(2002), makes a down-to-earth pitch for improving productivity by designing for reuse at every step of manufacturing. Last August,* RECORD*'s editor in chief, Robert Ivy, and McDonough talked in McDonough's Charlottesville office, their chairs resting on a sand-colored carpet of nylon pellets and polymers that will be reclaimed again and again in a near-infinite cradle-to-cradle loop.*

ARCHITECTURAL RECORD: *In your professional life, you've been something of a polymath. Is that how you see yourself?*
WILLIAM MCDONOUGH: I went to 19 schools in different countries before college. I've been exposed to different cultures and places and ideas. I think that broad exposure shows in my range of interests. Being a dean at the University of Virginia, I was impressed by the breadth of interests of the university's founder, Thomas Jefferson. In comparison to him, everyone looks like a slacker.

AR: *Talk a little about how your interests fit into your professional life.*
WM: I'm grounded in architecture, so I spend a lot of time on specific design questions for particular projects. In my business with Michael Braungart, we get down to the details of architecture and products and systems. Our work involves connecting with corporations and spending time talking to C.E.O.s and meta-managers.



Dr. Michael Braungart is a chemist and cofounder with McDonough of McDonough Braungart Design Chemistry (MBDC), in Charlottesville, Virginia.

AR: *Is there a motivating or underlying influence that has led you where you are?*
WM: I think that having seen people starve to death of disease in places of extreme shortages and having seen people thrive in places of abundance has yielded a set of values about the human right to celebrate life, liberty, and the pursuit of happiness, as Jefferson characterized it, and also the right of nature to exist and thrive.

AR: *Did you have an "aha" moment or did you grow into this?*
WM: It was a combination. Growing up in Hong Kong was a major influence. My grandparents lived in the woods in Puget Sound, where I spent my summers. As a child, I was either there or in the center of a bustling city with 6 million people on 40





The green office design of the Environmental Defense Fund in New York strives to respond to sick building syndrome (far left). The Bison Courtyard in Banff, Alberta, uses on-site storm-water and resource management, and certified sustainable harvested wood (left).

square miles. So that affected me. At Dartmouth I studied international relations. People have said that our work today is a form of high diplomacy as well as a form of action.

And then the energy crisis happened when I was in architecture school at Yale. I was shocked when major architects taught that solar energy had nothing to do with architecture. A few of us broke from the ranks at Yale. We were looking for what it meant to be a swan in the next century. I built my first solar house in Ireland while at Yale. We started the Environmental Trust Fund, and that was the first time we worked with materials on a molecular level. And then I won a competition for a skyscraper in Poland, for which I proposed that the developer plant 10 square miles of trees to offset the building's effects on climate change. That was 1989.

In 1991, I met Michael Braungart. The two of us coming together was what we called design chemistry. That was a great moment! Michael is a genius, and he showed me that the disparate threads I had been looking at in an intuitive way had a scientific basis, and that science had a design basis. That was a revelation.



***Cradle to Cradle: Remaking the Way We Make Things*, North Point Press, 2002.**

AR: *The basis of your understanding is architectural, and his is scientific. Yet you're delving into areas at the intersection of these two worlds. Has it taken you into science?*

WM: For me science is like music. I love listening to it, but I am not a scientist. I am very attention-deficit disordered; I jump around a lot. So I'm always amazed at how scientists are able to drill down and stay with a subject. The practice of architecture at this point in history necessarily has to be informed by the science of making. You see polymaths like Vitruvius or Jefferson being very interested in science. You couldn't have a fundamental view of the human experience without science.

AR: *Is architectural education grappling with questions of science or making us inquisitive enough to explore?*

WM: As a dean, I didn't have faculty trained in these areas, and there was a confusion in many educators' minds about interdisciplinary thinking and multidisciplinary thinking.

AR: *Expand on that, please.*

WM: I need a multidisciplinary team, including a chemist, to do my work, but I don't have to know chemistry. I think the important thing for architectural education is to teach that we need multidisciplinary teams to do the green work.

I think an important thing that's been missing is a coherent framework for design based on a sustaining strategy. It's sort of like we need a new Bauhaus, a new platform of thought and activity, and it will require a broad range of interests. The Bauhaus brought fundamentals of engineering to the arts and art values to engineering. We need to bring those two dimensions back together and combine them with advanced science, the understanding of relativity and DNA.

I don't have the math or science to be able to engage in a comprehensive discussion with a physicist or chemist, but I can read an equation. I can understand that energy equals mass, mass is not growing, but energy and biomass are. So growth can be good. From a design perspective, that's an immensely valuable piece of information,

That brings us to DNA, because what's missing in the equation is biology. That's the next discovery of our era—DNA and nanotechnology, which includes knowing what's going on at the molecular level, what goes on in a virus, what goes on in genetic engineering, and synergetics.

AR: *These three issues or interests—high tech, nanotech, and synergetics combined with an underlying ethical framework and concern for the human condition—set you apart. Do you see yourself as having a point of view that differs from others?*

WM: No. I think that what I'm talking about is common sense.

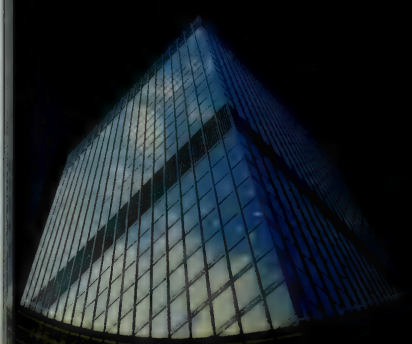
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The LEED Gold Ford Rouge project in Dearborn, Michigan, includes a 10-acre living roof, the largest green roof in America (far left). The Gap offices in San Bruno, California, feature an undulating roof covered in native grasses and wildflowers that respond to the local terrain (left).

I think everybody can understand what I'm talking about.

AR: *Al Gore's made his movie, oil is at $70 a barrel, temperatures have been at record highs, and China recently had the largest typhoon in 50 years. Has our clientele and the educated public come around?*
WM: Any sentient creature would have to recognize that there's a sea change coming. There's what some people have called "the McDonough paradox": It's the worriers who will solve the problems for those who aren't worrying much. Not only will they solve the problem; they'll seize its opportunities.

AR: *Are people knowledgeable about products?*
WM: No. We're seeing people promulgating products as having recycled content, but what if you're recycling toxic products? The nice thing about cradle to cradle is it asks a very simple question: Are you cradle to cradle or not? It's not very complicated.

AR: *Corporations seem to be jumping on the bandwagon because of the commercial implications. Could you talk a little about the implications of this for you as a planner and architect?*
WM: Many people are adopting cradle to cradle and the specific strategies that Michael and I are proposing. And clients have become sophisticated, which allows us to continuously push the envelope. So we don't market ourselves; we respond to the marketplace.

AR: *That's interesting. Do you have competitors?*
WM: We've been careful not to compete. The Latin root for compete, *competare*, means "strive together," go forward together. I think I've also made a considered judgment not to expose my work broadly, but rather to expose the ideas broadly. And our ideas are not inconsistent with other peoples' good ideas. Other groups may be very focused on, for example, efficiency or being less bad; we're focused on being more good, because being less bad is still being bad. It's good to be less bad, but it's insufficient.

AR: *Describe to me how your work began in the U.S., but evolved and grew to become international.*
WM: My first building was in Jordan. When I graduated from Dartmouth, I followed my professor of urban planning to Jordan as a field representative for the 100-year master-plan team for the Jordan Valley. I lived with the Bedouins, building settlements for them. After being nomads for millennia, they were settling, due to border closings in Iraq, Syria, and Lebanon. We had to figure out what it meant to settle a Bedouin.

AR: *You are now working in China. What's your take on China's challenges?*
WM: China is just so explosive. It's like wrestling a supernova. It's expanding and contracting simultaneously, so that it's both terrifying and thrilling. The Chinese have a long history of relating to the landscape and regard it as perpetual. So when they get the idea that we're designing for perpetuity, it makes sense to them. The other thing is that the president of China has called on the country to adopt a circular economy, and we're regarded as part of that.

People often ask me why I work with corporations that have been culprits in destruction, and my response has to be, "Who am I supposed to be working with?" China's similar. She's shaking the world and can flip a switch and turn off our economy. How could I not be involved in a place that's going to build new housing for 400 million in 12 years? Why would I not want to be a miniscule part of this huge undertaking? And we're considered very much part of it.

AR: *Let me change gears a little. Are there challenges that you've faced that you haven't found a solution for or things you've tried that didn't work?*
WM: Definitely. When you do experimental work you don't slide from success to success. You lurch from one stumble to the next. We stumble all the time. The things that we tried and didn't really work had to do with business. We've discovered that we're better as leaders than as managers. The other thing I've learned is that there is no instant success. Someone said paths are made by walking them. So we're just trying to walk the path, just keep going in our plodding way.

AR: *You've chosen to keep your firm at a certain size as well.*
WM: Right. I want an organization that's only large enough to



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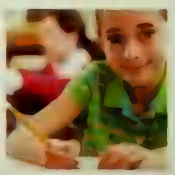
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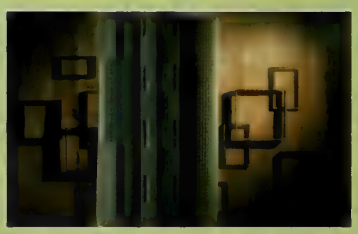
The Guantang Chuangye Sustainable Development Demonstration Project in Liuzhou, Guangxi Zhuang Autonomous Region, China (left), consists of an area of almost 5,500 acres that aspire to create a city master planned around sustainable strategies.

get the work done and small enough that I can stay in touch with everybody in it.

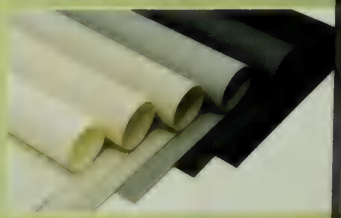
AR: *This is counter to a trend for architectural firms to get larger.*
WM: I've met with C.E.O.s who ask what's my business model, and when I tell them I'm a small service business, their jaws drop. I'm perfectly happy economically doing it the way I do it. Like any small business, we're always on the edge, but we're used to it. I get royalties from the products I've designed. And I get paid for speaking to big trade associations and corporate leaders.

AR: *What do you see as your primary strength as a professional?*
WM: I'm totally comfortable in a corporate boardroom, I'm comfortable in a neighborhood meeting, or in a group of designers chewing over some knotty problem. And I think that has been incredibly valuable.

AR: *Who taught you to do that?*
WM: I think growing up in an English colony, Hong Kong. My father was president of Seagram overseas, so I spent a lot of time as a student with senior business executives. Their language doesn't sound unfamiliar. My broad experiences and the fact that I've been not only in professional practice but also in academia gives me confidence. I think confidence is a big part of it. I'm very confident. Plus I don't expect anybody to give me something for nothing.







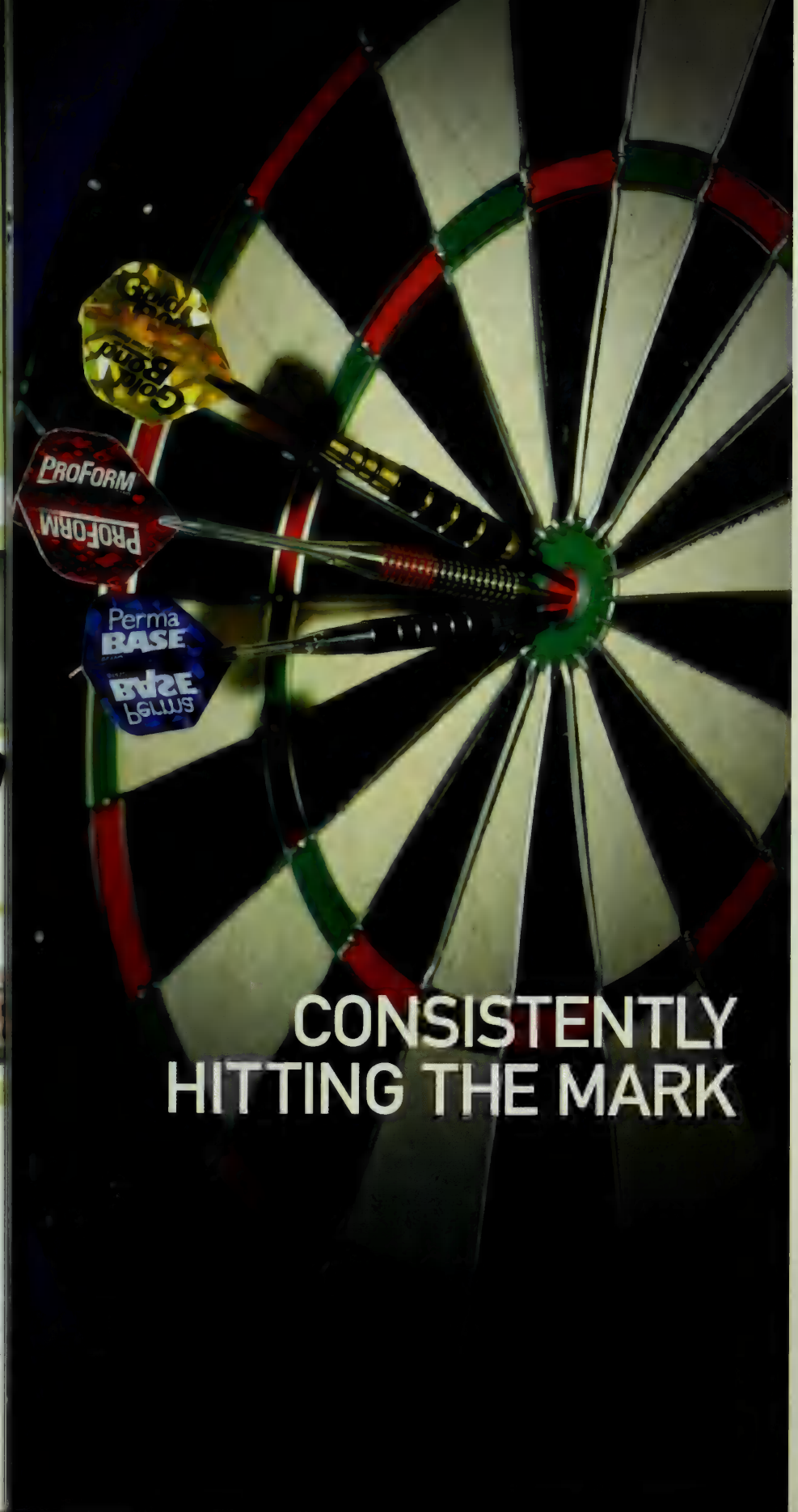


Judged for their content, recyclability, and manufacturing, these Cradle to Cradle–certified products embody ecologically intelligent design that eliminates waste: Work*Life and Urban Reflections from Shaw Industries (above two); MechoShade Systems (upper right); and the Steelcase Think chair (right).

AR: *You may have all the architects in the country seeing this interview. What do you want to tell them?*
WM: One is that we are ready to help architects and others with our deep chemistry. We would like to connect thousands of firms and individuals through our Web site and make our databases and cradle-to-cradle approach available to them. We'd like hundreds of firms to become cradle-to-cradle firms. We'd like to save firms the trouble of forming their own "green [illegible]." We'd share our resource information and that of thou[illegible] f people around the world. We focus on design [illegible] but there will be others who concentrate on botany, [illegible]ergy, water, social fairness, food. If we all said we want [illegible]-to-cradle things—carpets, shoes, cars—that's hugely powerful. I would invite everybody to join us. That would be one really important message.

The other message is that what we're doing is fundamental to human rights. The fact that we could be running out of natural resources makes the growth of human populations a problem. If each child being born is seen as a problem, then human rights cease to exist. So we need to restore the soil, or industry needs to upcycle it. We need to see petrochemicals as an asset that can be made into plastics and not burned. Cradle to cradle is a celebration of a world of abundance, not a world of limits. That's the big message. ■

For an expanded version of this interview, go to **archrecord.construction.com**



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The courthouse rises in an area east of downtown where old warehouses, a highway overpass, and railroad tracks mar the character. The city hopes the new courthouse will serve as a catalyst for redevelopment. The entry facade (this page) engages the street with glass and a grand stair.

In Eugene, Oregon, **Morphosis** creates a **U.S. COURTHOUSE** that provides common ground for people with different points of view

By Clifford A. Pearson

At a time when Americans are deeply divided about the role of government and whether judges should interpret or apply the law, courthouse architecture has become a potential battlefield. No matter what it looks like, every new courthouse—especially one built by the federal government—sends a message about values and political beliefs.

Iconography was very much on the mind of Michael Hogan, the chief judge of the U.S. District Court for the District of Oregon in 1999, when the General Services Administration (GSA) held a design competition for the Wayne Lyman Morse U.S. Courthouse in Eugene. (Hogan is no longer chief judge, but remains on the court.) A conservative jurist appointed by the first President George Bush, Hogan imagined Cass Gilbert's Supreme Court building in Washington, D.C., whenever he thought of courthouse design. Enter Thom Mayne, the Morphosis principal who flaunts his credentials as a leftist iconoclast and designs buildings whose fragmented forms embody, as he explains, "a lack of completion, an open-ended process." Natural enemies, Hogan and Mayne locked horns immediately. When Hogan was outvoted and Morphosis won the Eugene courthouse job, the judge couldn't see how he could ever be comfortable working in a building designed by Mayne. But he set himself the task of engaging Mayne in a discussion of values and ideas, challenging the architect while keeping his own mind open. The two strong-willed individuals had plenty of time to wrestle with issues large and small, as the courthouse site changed and the building didn't open until December 2006. By then, Hogan and Mayne had become close collaborators, still disagreeing on politics but speaking in one voice about the critical issues expressed in the $78 million, 270,000-square-foot courthouse that stands on the south bank of the Willamette River.

The judge and the architect found common ground by focusing on values such as transparency, access, and civic engagement. "Old court-







Given little architectural context to connect with (top), the building establishes its own design vocabulary that expresses an open-ended process (above).

1. *Courthouse*
2. *Elevated roadway*
3. *Railroad*
4. *Willamette River*

Project: *Wayne Lyman Morse United States Courthouse, Eugene, Oregon*
Design architect: *Morphosis—Thom Mayne, FAIA, principal; Kim Groves, project manager; Maria Guest, job captain; Ben Damron, Patrick Tighe, Eui-Sung Yi, project designers; Caroline Barat, Linda Chung, Ted Kane, Ung-Joo Scott Lee, Rolando Mendoza, John Skillern, Martin Summers, project team*
Executive architect: *DLR Group*
Engineer: *KPFF (structural, civil)*
Construction manager: *Jacobs Facilities; Construction CPR*
General contractor: *J.E. Dunn*





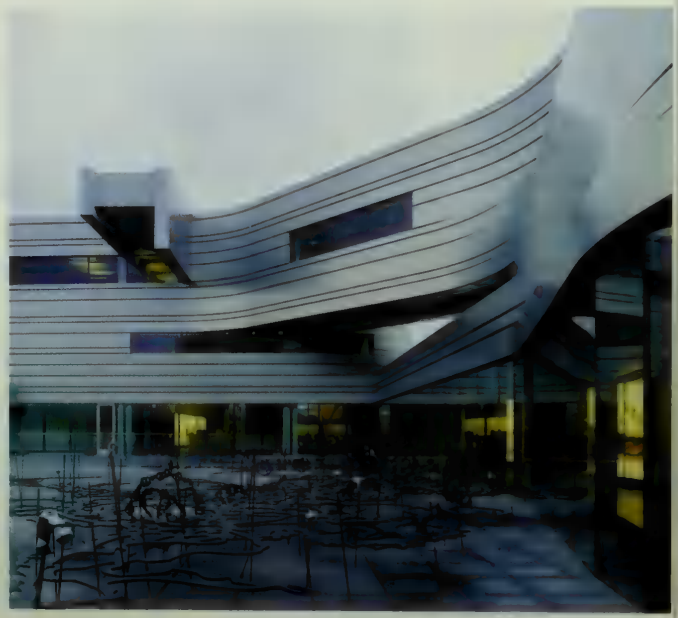
The building places a fluid, steel-frame structure atop a straitlaced, concrete base. The 8th Street elevation (top spread) refers to old courthouses with its grand stair and raised entry on a *piano nobile*. The concrete stair, adjacent amphitheater seating, and planted terraces also serve as security measures, replacing bollards and heavy walls. A roof deck (left and opposite, bottom) provides daylight to the hallway leading to the building's six courtrooms.

houses sat on the public square, so everyone knew where the law was," says Hogan. "With their imposing columns and porticoes, they expressed the importance of the courts and served as civic landmarks." After traveling to France with Mayne to visit Richard Rogers's Law Courts in Bordeaux, Jean Nouvel's Palace of Justice in Nantes, and the Cartier Foundation in Paris, Hogan saw how these values could be embodied in buildings made with modern materials and technologies. "We spent a lot of time talking about history and breaking down the courthouse into its

THE CURVING, ORGANIC FORMS OF THE COURTROOMS ESTABLISH A COLLECTIVE LANGUAGE FOR THE BUILDING.

essential elements," explains Mayne. "We both admired the old, one-room courthouse in the middle of town that had an iconic, singular presence," adds the architect. "In a lot of recent courthouses, however, the courtroom gets lost in a sequence of many different office and judicial spaces."

So Mayne and his project manager Kim Groves started with the project's six courtrooms and designed the rest of the building to support the primacy of the spaces where justice is served. The curving, organic forms of the courtrooms they developed allude to the cedar-clad pods





SECTION A-A



SECTION B-B

1. *Lobby*
2. *Atrium*
3. *Offices*
4. *Security*
5. *Jury assembly*
6. *Courtroom*
7. *Jury suite*
8. *Roof deck*
9. *Roof terrace*
10. *Bamboo garden (below)*
11. *Judge's chamber*
12. *Library*
13. *Mechanical*
14. *Parking*

To keep the courtrooms on one floor, Morphosis freed them of ancillary functions, such as the judges' chambers (which it placed on the fifth floor) and offices (which it put on the first and second floors).



LEVEL ONE



LEVEL TWO



LEVEL THREE



LEVEL FIVE

The building's orthogonal and curvilinear geometries come together in the skylit atrium (above and below).

Rogers designed in Bordeaux and establish what Mayne calls a "collective language" for the rest of the building. In an unusual move, Mayne and Groves placed the judges' chambers above the courtrooms instead of adjacent to them, and inserted pairs of teardrop-shaped courtrooms in three pavilions. As a result, the rooms for judicial proceedings read as distinct forms, announcing their role as the public venue for justice. Wrapped in ribbons of 16-gauge stainless steel brushed with a nondirectional finish (so it won't create glare), the courtroom pavilions express a fluid attitude to the law (or at least design) that seems to be more Thom Mayne than Michael Hogan. Inside each courtroom, though, a strong central axis—reinforced by a suspended, beamlike lighting fixture and a window directly above the judge's chair—reminds the public of the judge's stature and seems to speak in a more conservative tone.

This split personality runs throughout the building. While the courtrooms and judges' chambers wrap themselves in undulating cloaks of brushed steel, the floors below (which house administrative and support spaces as well as offices for the courts, the U.S. Attorney, probation and pretrial services, the GSA, two U.S. senators, and one member of the House of Representatives) follow an orthogonal, 28-foot grid. In structure, the building divides in two, as well, with the lower two floors employing a poured-concrete frame and the upper three floors a steel







The architects sculpted the hallway leading to the courtrooms, bringing in plenty of daylight (above two). Paneling of cherry and walnut add warmth to the courtrooms (below two).







Artist Matthew Ritchie created the illuminated wall murals (at left) and the sculpture (at right) on the third-floor roof deck.

frame. The idea was to create a rectilinear plinth on which Justice stood in her draped steel robes.

To imbue the building with a civic presence and recall the iconography of old courthouses, Mayne gave it a *piano nobile* accessed by a grand stair on its main elevation facing 8th Street. Raising the entry level to the second floor also helped the architect handle tight security requirements in an unobtrusive way. Instead of heavy bollards or imposing walls, he used a row of grassy terraces, the concrete grand stair, and adjacent amphitheater seating to protect the building from car bombings. Setbacks and planted berms on other elevations provide security. As in all federal courthouses, three separate circulation systems (one for the public, one for judges, and one for prisoners) offer another layer of security.

The building's orthogonal and curvilinear characters come together in an impressive atrium that rises five stories. While the project's two personalities sometimes seem to be at odds with each other when viewed from outside, they are more resolved on the inside, creating dynamic spaces not only in the atrium but in the double-height hallway on the third floor connecting the six courtrooms. With daylight coming from above and from a large roof deck around which the hallway wraps, the courtroom floor vividly establishes the sense of openness and transparency that Mayne and Hogan wanted so much to communicate. But, alas, the roof deck (except for a small area on one side) is closed to the public. A trio of illuminated murals by artist Matthew Ritchie depict Oregon's history and landscape and serve as visual links between the three courtroom pavilions. (The courthouse features an effective art program, with pieces by Ritchie, Kristin Timke, Cris Bruch, and Sean Healy.)

The courtrooms, which range in size from 1,800 to 3,000 square feet, express the gravity of the judicial process without resorting to any old-fashioned symbols or devices. Cherry and walnut paneling wrap around the upper portion of the rooms in a warm embrace, while dark gray carpeting and walls define a lower, somber area around the simple, pewlike seating.

Although environmental concerns were not part of the project's original mission, Mayne and Hogan agreed the building must reflect Oregon's prevailing ethos of sustainability. Using a variety of green strategies—including proper solar orientation, daylighting, efficient air handling through access flooring, and radiant heating in the floors of the main public spaces—the building achieved a LEED Gold rating.

"This building is the first deep look at courthouse design in decades," states Hogan. Approaching issues of security, transparency, and iconography in fresh ways and drawing forth underlying values, Mayne and his firm have created a building that speaks to constituencies who don't always agree on many things. ■

For Sources, go to page 202, and Projects at **archrecord.construction.com**.



SITE PLAN

N ↗ 0 20 FT. 6 M.

On a cramped site, the architects pushed the building's envelope to its limit without imposing on the quaint town. The new building gives the museum a strong presence on the main thoroughfare.

Machado and Silvetti challenge and benefit a historic seaside community with the PROVINCETOWN ART ASSOCIATION AND MUSEUM

By John Gendall

To those who have visited Provincetown, Massachusetts, it would be hard to imagine a 20,000-square-foot institutional building rising up in the middle of that quaint, New England seaside town. But such a building now exists, and thanks to a thoughtful design by Machado and Silvetti Associates, it fits right in.

Operating from a white clapboard house since 1921, the Provincetown Art Association and Museum (PAAM) has been a longstanding presence on Cape Cod. But ad hoc additions over the years left the museum an architectural collage of disjointed constituent parts. With each addition carrying its own mechanical system, the museum was not only unsightly, but also inefficient. The lack of climate control and leaking roofs discomfited employees and visitors, but more important, prevented the museum from borrowing artwork from other institutions.

When the new executive director Christine McCarthy took over, she decided to finally restore and expand the museum. Her challenge was to commission a large institutional building on a cramped site in a quiet residential section of the small beach community.

McCarthy turned to Boston-based Machado and Silvetti, whose principals, Rodolfo Machado and Jorge Silvetti, are longstanding Harvard professors and Provincetown homeowners. The two Argentina-born architects have always been particularly committed to generating specific designs in the context of competing, even polarizing, styles. They set out to navigate a third way, resulting in what the two call "unprecedented realism," the title of their 1995 monograph edited by K. Michael Hays. In this approach, they acknowledge competing vernacular and formally autonomous precedents, but position their work in the unforged territory in between.

In between in Provincetown

Such a scheme was required for the Provincetown museum. Rather than razing the entire structure, the team salvaged and restored the original house along with two galleries in the back, while tearing down the more





The museum's ground-level opening connects it to the neighborhood (above and opposite). Lighting in the second-story art school is partly concealed behind cedar strips, while two box lanterns (above and top) are extruded, enlivening the relationship of solid and void.

Project: *Provincetown Art Association and Museum, Provincetown, Massachusetts*
Architect: *Machado and Silvetti Associates—Jorge Silvetti, principal in charge; Rodolfo Machado, consulting principal; Andrew Cruse, AIA and Michael LeBlanc, associates in charge; Kelly Smith, Derek Johnson, John Clegg, Chris Grimley, project team*
Client's Project Manager: *Daedalus Projects*



The tripartite arrangement carries through to the western elevation. At the side of the addition, a new receiving door (above) has simplified the shipping and storage of art.

derelict add-ons. In a $5 million, two-part process, in 2004 the architects restored the old house so that the museum could mount shows in its exhibition space while the new wing was being built the following year.

Silvetti notes that they "used every buildable square inch of space." But by manipulating the relationship of solid and void, the architects eliminated what the program suggested would be an urbanistic imposition on the small town. The elevation's massing is broken up into three horizontal bands. The lower, concrete-and-glass portion is set back from the building's volume. Tucked beneath the upper two levels, it withdraws from the street, an effect accentuated by the glass walls. On the top level, a boxy glass lantern is pulled up and out from the cedar siding, which amplifies this isolated element as a negative space in relation to the mass. And at night when the museum's lights are on, other glazed voids appear that are otherwise partially concealed by day behind the thin strips of cedar. Some of the voids are behind the cedar, while others emerge from it, allowing them to break up and activate the surface.

In addition to reducing the overall volumetric impact, these techniques also manage to negotiate the space between two aesthetic polarities. The building neither capitulates to the town's shingled vernacular Cape Cod context, nor reacts against it as a purely formal, autonomous object. The uppermost band is wrapped in cedar—like so many of the museum's neighboring clapboard buildings—but is positioned here in thin, linear strips, like unmovable louvers. The middle register is clad with cedar shingles, the most quintessential Cape Cod element. But they are custom Spanish cedar, and are sized larger than

IT NEITHER CAPITULATES TO THE CAPE COD CONTEXT, NOR REACTS AGAINST IT AS A FORMAL, AUTONOMOUS OBJECT.

their Massachusetts counterparts. Fixed using a Dutch lap system, each shingle overlaps on both its top and its side, in contrast to the typical Cape Cod style that overlaps only top to bottom. And on the lowest band, the concrete and glass assert the design's contemporaneity. But the concrete is board-formed, so its surface is imprinted with local wood. Each of the building's distinct surfaces therefore reveals a manipulation of material and form that leaves the architecture uncommitted to any aesthetic categorization.



The new building almost doubles the museum's space, which had been confined to the original clapboard house since 1921. The new building picks up cues from the house, but with contemporary expression.

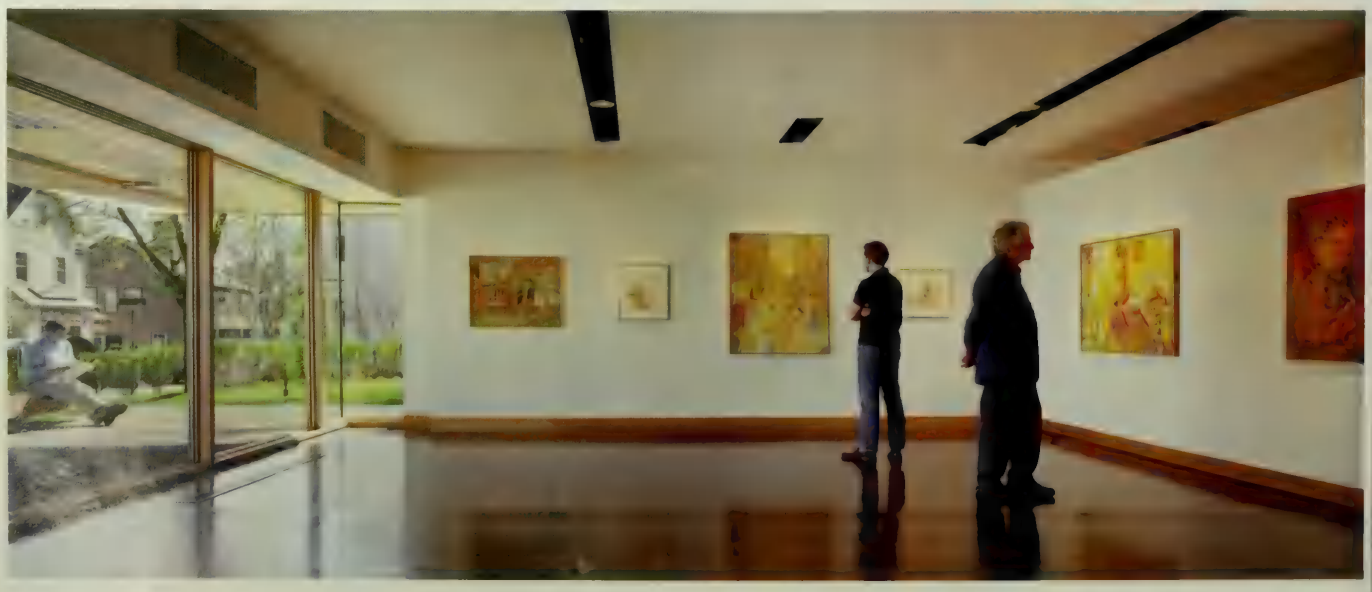




1. *Reception/bookstore*
2. *Gallery*
3. *Museum back-of-house*
4. *Administration*
5. *Museum school*



The art school on the museum's second story is flooded with daylight (left). The first permanent home for this popular community resource, the school has access to the museum's collection.





Features such as natural light helped the museum earn a LEED-Silver distinction. Light-sensitive artwork can be exhibited in the two galleries in back.

Old and new

A staircase leading up to the second-story classroom and offices helps to suture the new to the old. This feature links buildings whose floors have two different heights (10 feet in the new compared with 8 feet 6 inches in the old) without compromising the interior continuity between the two volumes. On the exterior, the new building follows the eave of the old one, which unites the two with a single, strongly articulated line. This visual continuity is accentuated by pushing the new building's upper level to the western side, away from the old house.

Partitioned into five galleries, the exhibition spaces can be used individually or collectively. Some galleries are intimate, others more expansive, but together they provide a logical and unencumbered venue for viewing art. And in a rare move for a building type that normally demands enclosed galleries, a glass wall in the first gallery allows an interaction between the museum and Provincetown's main pedestrian thoroughfare. Two galleries toward the back are totally enclosed and can thus exhibit light-sensitive work. A second-story art school draws from both the exhibitions and collection. The architects accommodated a desire by the school to have the collection on-site by adding 2,000 additional square feet of storage space.

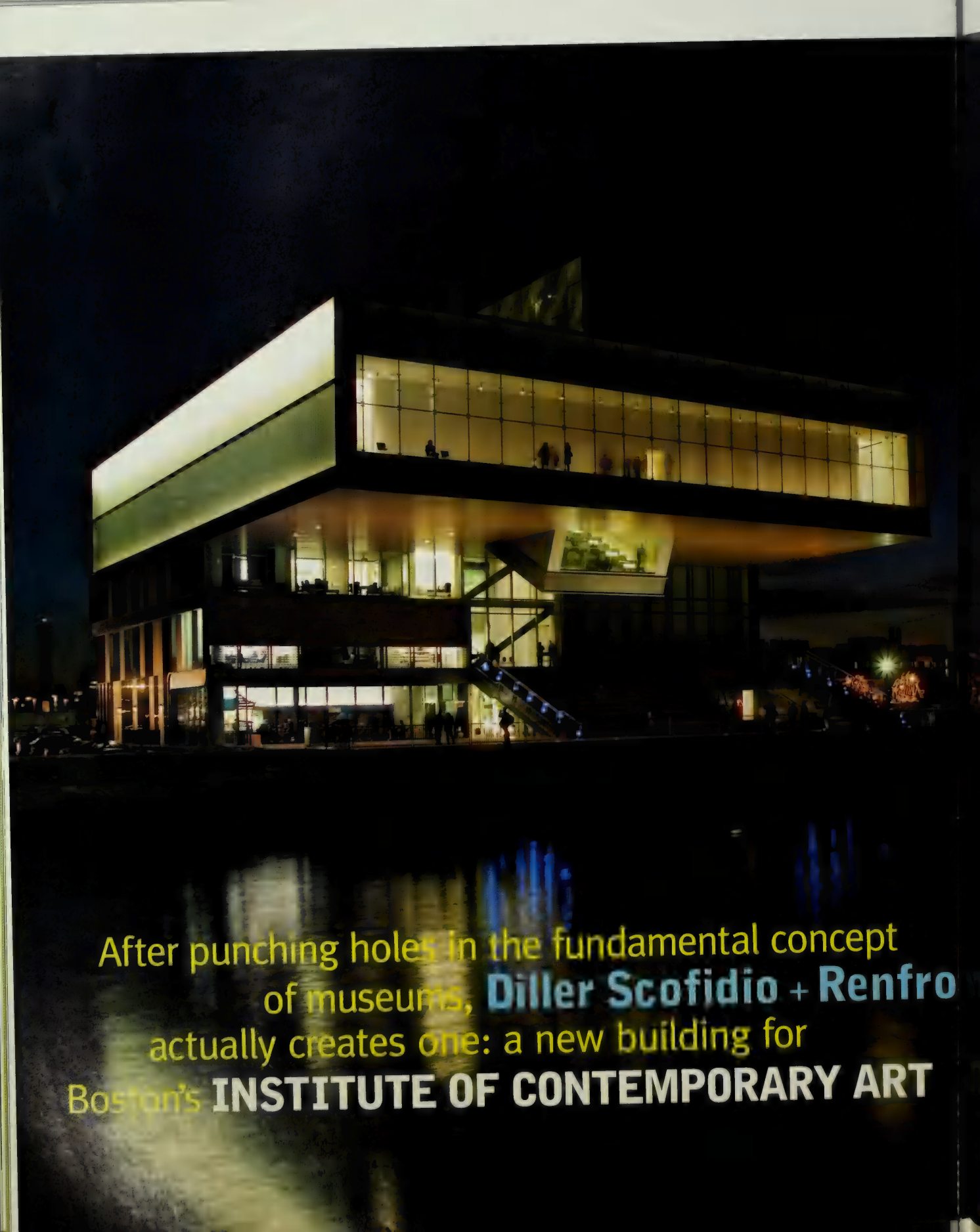
The first art museum to ever qualify for LEED, PAAM earned a Silver rating from the U.S. Green Building Council. Photovoltaic arrays coupled with a number of other measures, such as a thermally efficient skin, low-flow water features, and natural light and ventilation contribute to a substantial overall measure of sustainability.

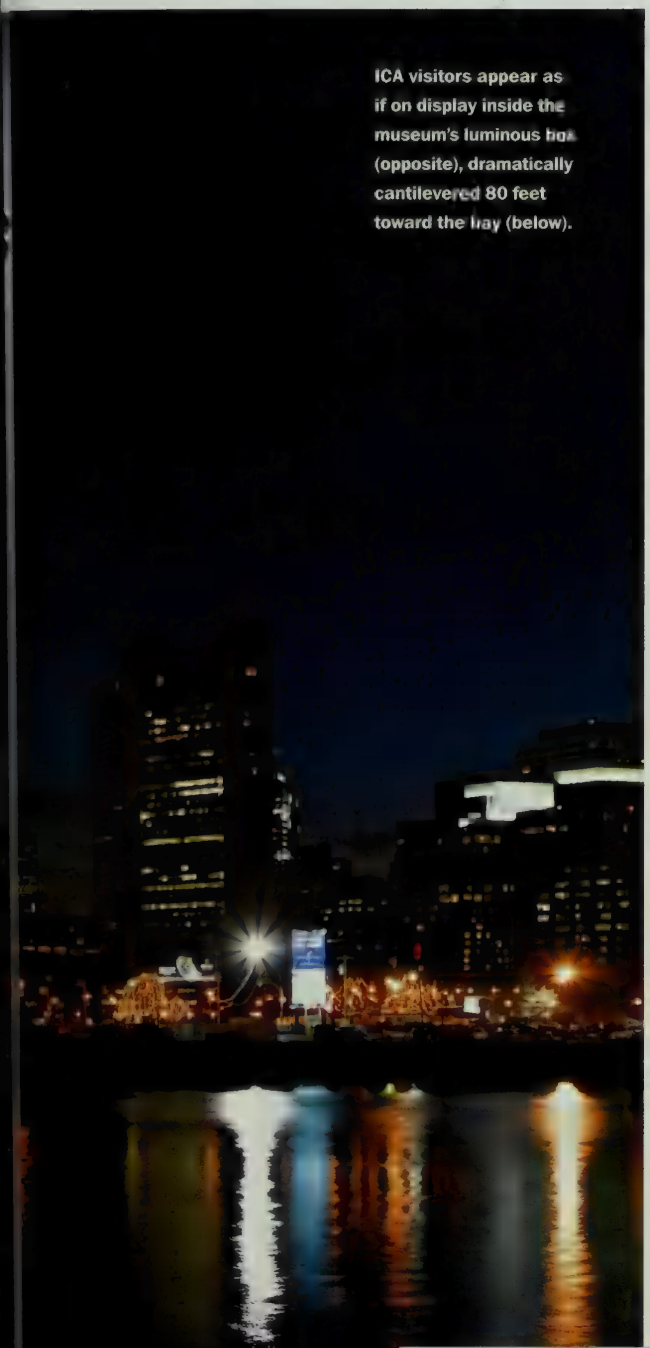
Art (vs.) museum

Recent museum architecture often invites commentary on its relationship to the art it houses (currently notable in the escalating debate over Daniel Libeskind's Denver Art Museum [RECORD, January 2007, page 84]). On one side of the discussion are museums whose formal expressiveness results in interior spaces that force the art and its curators into awkward submission. And on the other side is an architecture resigned to providing little more than exhibition walls enclosed in a box.

Appealing once again to its ability to find a third way, Machado and Silvetti transcends that debate. With PAAM, the firm realizes a museum with an expressive and elegant form perfectly amenable to showing art. Its simple beauty satisfies the intentions of both sides of the conversation, and panders to neither. ■

For Sources, go to page 202, and Projects at **archrecord.construction.com**.


After punching holes in the fundamental concept
of museums, Diller Scofidio + Renfro
actually creates one: a new building for
Boston's INSTITUTE OF CONTEMPORARY ART



ICA visitors appear as if on display inside the museum's luminous box (opposite), dramatically cantilevered 80 feet toward the bay (below).

PHOTOGRAPHY: © NIC LEHOUX, EXCEPT AS NOTED

By Sarah Amelar

It seems remarkable that architects Elizabeth Diller and Ricardo Scofidio—longtime irreverent skeptics of the very idea of the art museum—ever won the commission to design the recently completed home of the Institute of Contemporary Art (ICA), in Boston. But ICA director Jill Medvedow—whose short list ran from Diller+Scofidio, of New York, to Peter Zumthor, of Switzerland; Office dA, of Boston; and Studio Granda, of Iceland—was more than willing to take risks. In fact, she sought out architects who had never realized a major building in the United States before. To meet that criteria, Diller and Scofidio had no need to reinvent their résumé: In more than two decades of practice, they had lingered provocatively on the theoretical fringes of architecture, completing only one actual building (Slither housing [2000], in Gifu, Japan) and one interior (the Brasserie restaurant [2000], in New York's Seagram Building).

Ever since the firm's founding in 1979, Diller+Scofidio (which formed Diller Scofidio + Renfro, with Charles Renfro, in 2004) challenged the rituals and spatial constructs of everyday life, upending such culturally embedded icons as the picture window, the tourist suitcase, and the great American lawn. Its discourses, engaging electronic technologies and sparked with ironic visual and linguistic puns, largely inhabited the arenas of installation and conceptual art, video, or dance, rather than architecture per se. The strategy typically relied on an amusingly clever device that viewers quickly realized was altering their perceptions or choreographing their moves and, in so doing, delivering a pointed social or institutional critique.

Even in the Diller+Scofidio retrospective at the Whitney Museum in 2003, the duo deployed a playfully undermining device: robotic drills on tracks that scuttled about the exhibition, randomly driving messy holes into the museum's pristine walls. While Diller and Scofidio were complicit with the museum in producing a grand show of their work, their staged (institutionally sanctioned) "disobedience" seemed to insist: But you see, we're still provocative outsiders—we're not *really* part of The Establishment.

With the ICA, the architects still seem to be casting themselves as cerebral titillators or intellectual guerrillas. But in contrast to their Blur Building (2002)—a temporary pavilion in the form of a self-generating cloud, housing virtually nothing but fleeting experience and a fog-creating mechanism—the 65,000-square-foot ICA definitely needed enclosure and solutions to the nitty-gritty of program and site constraints. In moving the 70-year-old museum across town from a cramped former police station in Back Bay to Fan Pier, a desolate, 21-acre site on South Boston's waterfront

Project: *ICA, Boston*
Architect: *Diller Scofidio + Renfro—Elizabeth Diller, Ricardo Scofidio, Charles Renfro, principals*
Associate architect: *Perry Dean Rogers Partners Architects*
Engineers: *Arup (structural, m/e/p); Robert Sillman Associates (metal)*





The architects tucked the museum's entrance obliquely into its southwest corner (left). The west elevation reveals the "folded" section through the theater, with the slope of raked seating descending from the third to the second floor, and then continuing down through the stadium steps outside (opposite). The "fold" is expressed here in a South American hardwood, Santa Maria, with painted aluminum panels. Crowning the structure, north-facing light monitors project up from the cantilevered gallery volume, rendered in channel glass (opposite).



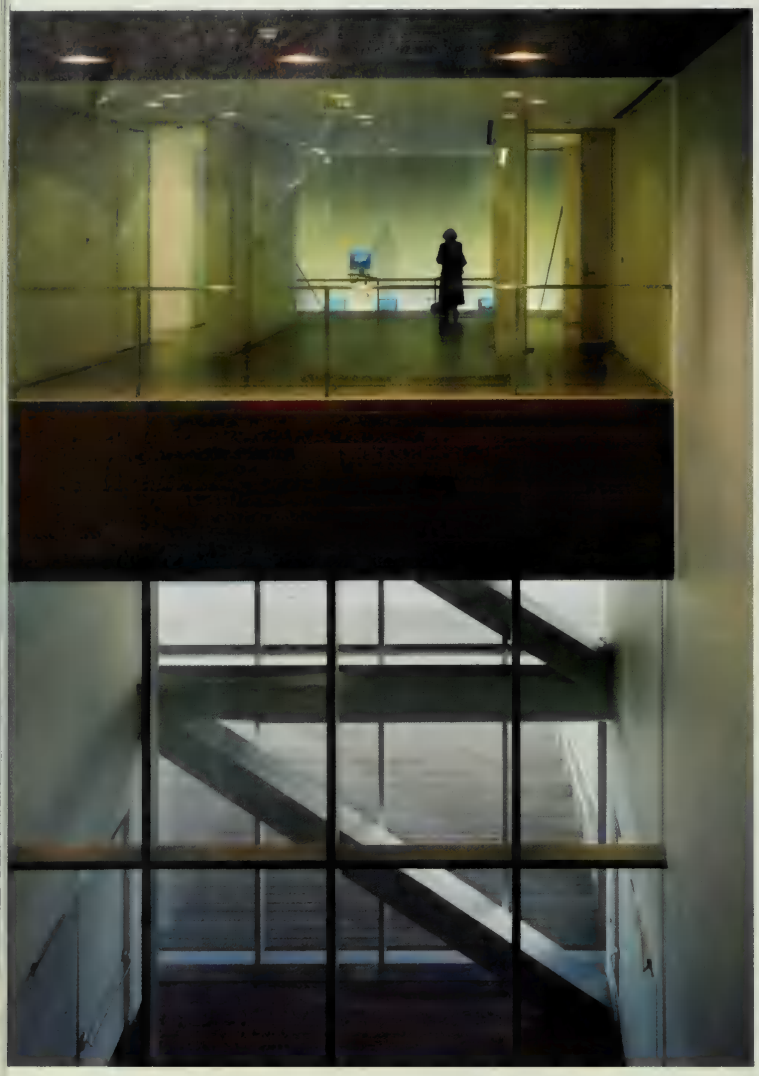
poised for development, director Medvedow had a top requirement: to put the galleries on a single floor. The catch was, she needed 17,000 square feet of exhibition space (for temporary shows and the newly forming permanent collection), but the parcel allowed a footprint of only 16,000 square feet.

With the architects' characteristic deluge of ideas, they proposed four schemes, one with a barge letting exhibition space break away and travel to other waterfront neighborhoods. Determined to maximize the galleries' overhead daylight, Diller Scofidio + Renfro engineered a trade-off with the Boston Redevelopment Authority (BRA). The ICA would retract its footprint to the north, on the water side—widening a stretch of the city's future 47-mile HarborWalk—in exchange for the right to overhang the coastal path. Hence the genesis of the museum's top (fourth) floor, a luminously translucent, "floating" box of skylit galleries, surging toward the harbor on an extreme cantilever, 80 feet long, with four, 24-foot-deep steel megatrusses.

The ICA rises like a giant periscope, its lens hovering tantalizingly at the brink. Engaging the water is so key to the scheme that the structure's landside—its main approach—almost feels like its rear. Most people, unless in a water taxi, arrive across a sea of parking lots (future hotel, residential, and mixed-use sites, now in development) to an apertureless, banded composition of channel and clear glass with matte-aluminum panels. The entry, understated as a back door, slips visitors in obliquely at the southwest corner.

On the waterside, the $41 million building reveals its most open and dynamic face. In the trade-off with the BRA, the architects were not merely broadening the HarborWalk and gaining gallery space. They envisioned the path extending up metaphorically into the building, like a single undulant ribbon "enfolding public and private realms," as Diller puts it. With one continuous surface material—Santa Maria, a hardwood used in boatbuilding—the boardwalk "flows" up to form stadium steps (a see-and-be-seen venue) overlooking the water. The deck then morphs into the stage floor and raked seating inside the museum's theater, only to curl back, wrapping the auditorium ceiling and rolling outdoors again as the cantilever's underbelly above the grandstand. Revealing the wood's course, the east and west elevations are essentially section cuts. "The Fold," hardly a new idea, was all the rage in the 1990s, inspired by writings of Gilles Deleuze and the proclivities of emerging computer software. Despite that decade's prodigious outflow of "folded" schemes from architecture schools and theoretical practices, only a few (from UN Studio and several other firms) actually got built.

While the ICA's fold flows dynamically down the building's west side, the curve becomes more rigid, far less expressive on the east face, where it seems almost a conceit superimposed on more straightforward, rectilinear forms. Diller suggests that where it unfurls into a grandstand, the form subverts the traditional notion of monumental front steps rising



Sectional views across the open elevator shaft and adjacent atrium space (left) reveal enticing fragments: the Mediatheque's upper levels and, through a vertical truss, the outdoor deck. The ICA draws on many of the architects' earlier explorations. Here, a tower of exposed fluorescent bulbs at the center of the museum's internal stairwell (below) recalls *Loopholes*, a 1992 Diller+Scofidio installation, much as the Mediatheque (opposite) draws ideas from the Slow House scheme.



to a rarified domain of art. Whether or not the ICA's understated entrance and transposed "front steps" really buck The Establishment (and that's arguable), the building responds, most of all, to the aqueous edge.

The architects saw the harborscape simultaneously as a "draw and a liability or distraction from the artwork," says Diller. "Opening up the views all at once seemed too much—almost pornographic, totally exposed." Instead, the architects envisioned the building as a view-altering apparatus, or what Diller calls a "valve turning on and off the context." With a relatively simple program—a lobby, museum shop, café, 325-seat theater, administrative offices, and galleries—the architects "choreographed," as they put it, the journey through the ICA, consciously controlling the focus along the way, much as their conceptual work toyed explicitly with perception. From the spatial compression of an entry zone under the slope of the theater's rake, offering an oblique glimpse of the harbor, visitors ascend in a room-size elevator, scanning views out through its glass walls and supporting trusswork. With these visual teasers as constructive distraction, the elevator slips by the barely noticed, largely administrative second and third floors to an introspective, windowless zone: two neutral, well-proportioned galleries, illuminated by daylight (or electricity at night) filtering through a stretched-fabric ceiling under a north-facing sawtooth.

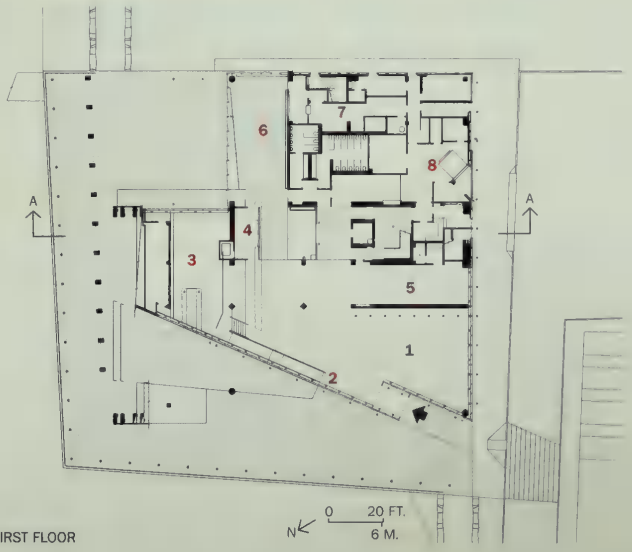
Soon the view comes back with a splash (almost literally) in the



SECTION A-A: Through Mediatheque and outdoor grandstand



1. *Lobby*
2. *Ramp*
3. *Bookstore*
4. *Coats*
5. *Art education lab*
6. *Café*
7. *Food preparation*
8. *Loading dock*
9. *Gallery*
10. *Mediatheque*
11. *Founders' Gallery*
12. *Bridge*
13. *Elevator lobby*
14. *Atrium*
15. *Mechanical*



FIRST FLOOR



FOURTH FLOOR







Founders' Gallery, a passageway connecting the paired exhibition spaces. This panoramic perch is enclosed to the north by a 128-foot-long, floor-to-ceiling, mullionless window (the lens of the great periscope) and conveys the breathtaking sense of floating above the water in a hall virtually inhabited by the bay and urban skyline. But this was not the architects' original intent.

They had planned to apply to the glass a lenticular film that would allow only perpendicular views out (appearing blurry from oblique angles), giving you the sensation of being stalked by vistas as you walk along. But when the museum board and staff toured the construction site, they were so wowed by the va-va-voom view, they insisted the glass remain clear. So the full-frontal "pornographic" panorama exposes itself sooner than first envisioned (a dramatic out-of-sequence move Diller still wistfully bemoans).

From here, the viewing "valve" closes down considerably in the Mediatheque, a cascade of flat-screen computers, with raked seating, descending to the biggest screen of all, a 21-by-9.5-foot, downward-canted window, framing a horizonless, dizzyingly abstracted "swatch" of the water's wavy surface. The means are simple, and the effect mesmerizing.

The computers let the visitors who can tear themselves away from the spectacularly manipulated view research the ICA collection. From the exterior, the Mediatheque appears as a projection booth or huge trap door, flapping down from the cantilever's underside. Inside, this space—a conceptual art piece in and of itself—is arguably the most extraordinary part of the ICA, akin to James Turrell's work in transforming vast natural expanses into framed, viewable planes of pure light or color. The Mediatheque also recalls Diller+Scofidio's unbuilt Slow House (1991), which was essentially a door along a curve leading to a picture window with ocean views partly blocked by a monitor showing a video of the ocean—one controlling device leading to another—rigged to keep the viewer from ever lining up the horizon lines in and outside the monitor. The Mediatheque, like Slow House, suggests that architecture mediates perception as much as, say, video does.

If visitors pass from the Mediatheque into the theater, entered one floor down, atop its rake, they regain full harbor views, this time through the stage's backdrop: two glazed, perpendicular curtain walls. Here, the outdoor stadium steps appear as a lower tier of theater seats, descending toward the real stage, the water. Again, the skyline's civic presence becomes almost palpable. (The giant picture window also has screening and black-out blinds.)

While the Founders' Gallery panorama is at least as stunning as the stage's backdrop, the experience of being stalked by views through lenticular film might have offered a phenomenal counterpoint to both the theater and Mediatheque, clarifying the spatial sequence and heightening the sense of the building as a view-controlling valve. But the lenticular addition might have transformed the ICA entirely into a self-conscious cerebral game, a museum as a series of intellectual art pieces, by the architects, competing with (and blowing out of the proverbial water) the work in the "regular" galleries.

Certainly, as realized, this box of visual tricks raises questions about what controls our readings of what we see—with a nod to the familiar 20th-century conundrum of what is art. But when it comes to displaying actual exhibitions, the new ICA building takes a far tamer approach. "Having spent our lives on the other side of the wall, making art and feeling frustrated by spaces," says Diller, "we wanted the galleries to be neutral, reprogrammable, unscripted." So they relegated the official art to good, handsomely proportioned, evenly luminous spaces that are, in the end, conventional.

Without radically shifting our experience of seeing art or our understanding of what a museum is, the ICA achieves a light-filled architecture with compelling connections to the water and the city. In some sense a retrospective of the firm's conceptual ideas, the building is more a viewing machine poised at an edge than a cutting-edge machine for viewing art.

For Sources, go to page 202, and Projects at archrecord.construction.com

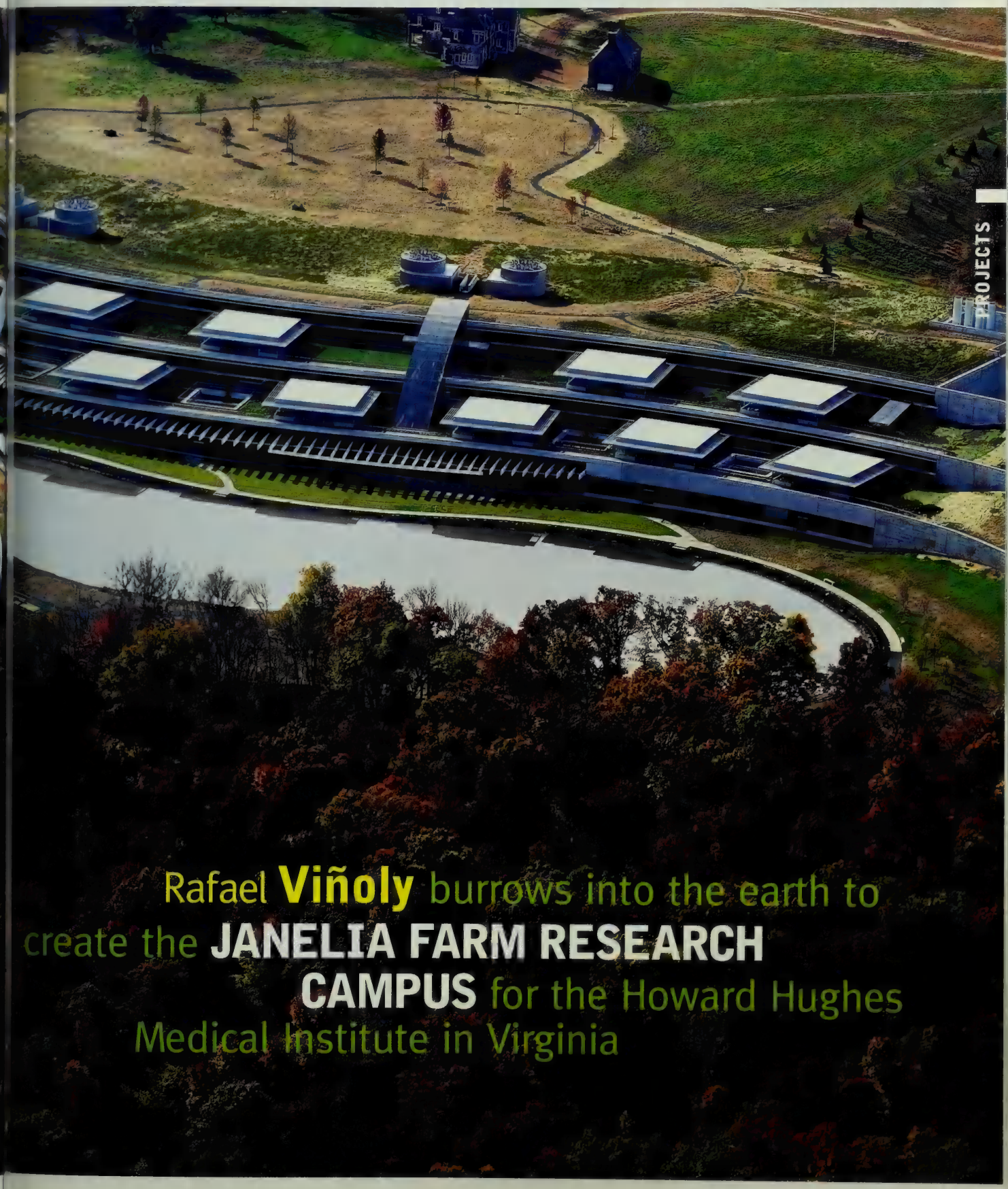


The architects provided open exhibition spaces that the curators can partition temporarily, as needed. A luminous, stretched-fabric ceiling, filtering daylight from north-facing monitors, floats visually above the galleries (opposite, top and middle). Both the theater (opposite, bottom) and the Founders' Gallery (right) expose full harbor views.

The three tiers of the research building emerge from the earth in curvilinear lines as the complex spills down a slope. Detached from it is a serpentine, two-story conference housing facility arcing around a man-made pond.

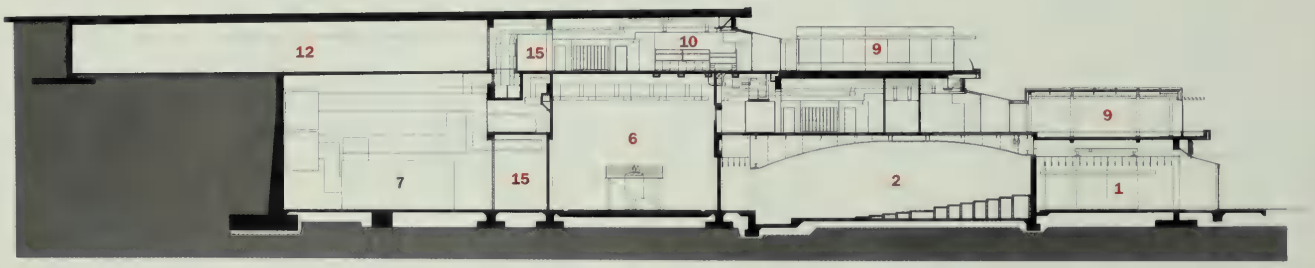


1. Laboratory building
2. Conference housing
3. Director's house
4. Short-term housing



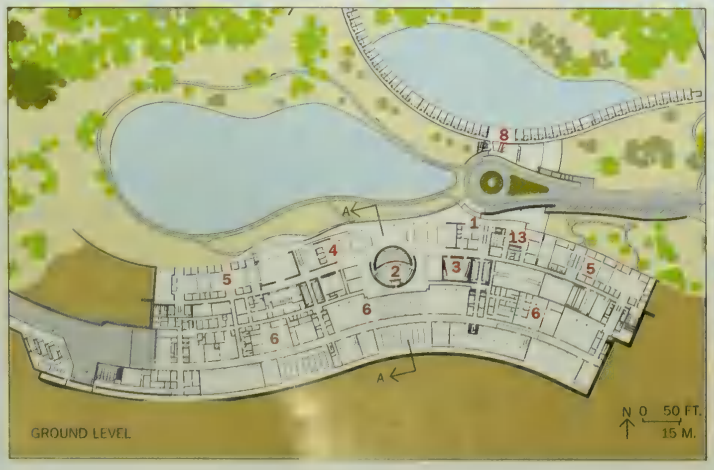
Rafael **Viñoly** burrows into the earth to create the **JANELIA FARM RESEARCH CAMPUS** for the Howard Hughes Medical Institute in Virginia



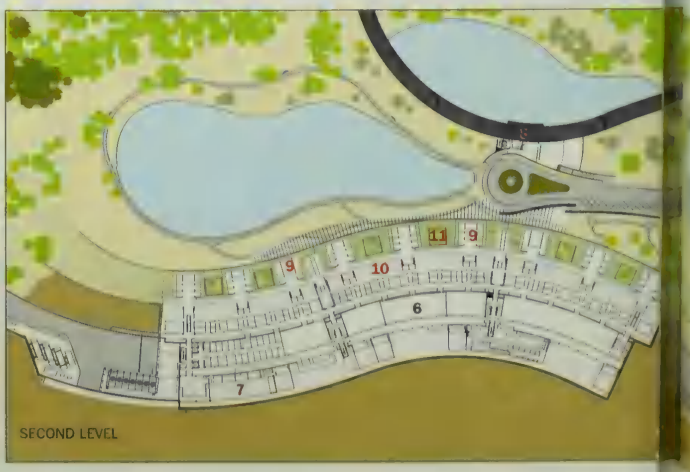


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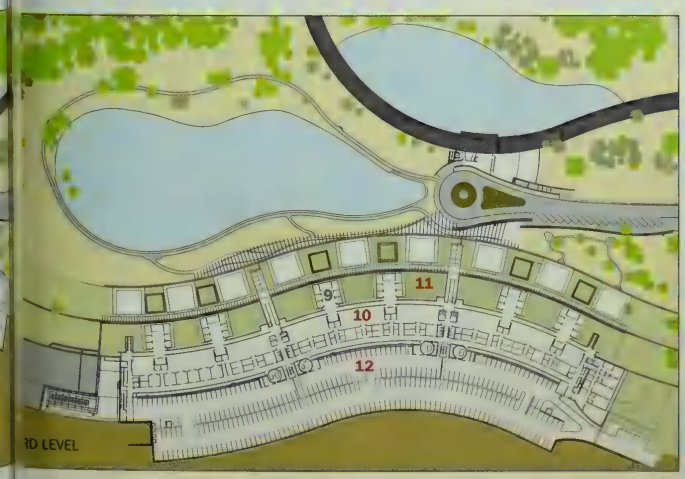
GROUND LEVEL



SECOND LEVEL

The three-tiered, 947-foot-long laboratory building contains the auditorium, seminar room, dining room, cafe, and administrative offices on the first level, with the laboratories on the second and third. The labs overlook planted terraces, on which glazed office pods for the scientists are placed.

1. *Lab building lobby*
2. *Auditorium*
3. *Seminar room*
4. *Library*
5. *Offices*
6. *Lab support*
7. *Building support*
8. *Conference housing*
9. *Office cell*
10. *Labs*
11. *Roof terrace*
12. *Parking*
13. *Dining*
14. *Main stair*
15. *Corridor*







At the entrance, painted steel trellis beams support a glass canopy. Poured-in-place concrete columns demarcate interior zones where ceiling beams are veneered in maple and glazed atriums admit more daylight.

By Suzanne Stephens

The more successful buildings by Rafael Viñoly, FAIA, display distinct athletic gestures—from the smoothly arcing roof of the 1994 Lehman College Physical Education Facility in New York to the exuberant, glass-barrel-vaulted roof of the Kimmel Center for Performing Arts in Philadelphia [RECORD, March, 2002, page 106]. With the newly completed Janelia Farm Research Campus outside Leesberg, Virginia, however, Viñoly has exchanged such feats of bravura for a subtler move—that of merging a 947-foot-long, 280-foot deep, curvilinear building with the earth. By deftly inserting a three-tiered, terraced structure into the gentle slope of a hill to serve as a research center for the Howard Hughes Medical Institute (HHMI), the Uruguayan-born, New York–based architect has created a dramatically deferential work of architecture. Although the planting needs about five more years before hard edges of the building begin to be softened by the landscape, the concept is already compelling.

HHMI, headquartered in Chevy Chase, Maryland, is a philanthropic foundation that awards grants to scientists and engineers for advanced biomedical research. Since it was formed in 1953, the foundation has supported decentralized investigation in various academic and research institutions. Now, finally, scientists can come to the 581,000-square-foot center to work in small, often interdisciplinary teams for various lengths of time. In addition, the campus offers 96 rooms as overnight accommodations in a separate, 59,000-square-foot conference housing structure, plus short-term housing in a cluster of nine multifamily residences. The scientists started moving in last fall; by 2009, the HHMI expects to have about 100 visiting investigators and 250 research staff.

In planning this campus, HHMI found a 281-acre tract of land near Washington, D.C., bordering a Potomac tributary 15 minutes by car from Dulles Airport. The property had belonged to Vinton and Robert Pickens, an artist and journalist, respectively, whose steeply pitched, hipped-roof brick house, designed in 1936 by Smith and Walker, crowned the site. Since the state of Virginia required the manor house, now listed on the National Register of Historic Places, to be kept intact, along with a view cor-

Project: *Janelia Farm Research Campus, Howard Hughes Medical Institute, Ashburn, Va.*
Architect: *Rafael Viñoly Architects—Rafael Vinoly, FAIA, lead designer; Jay Bargmann, AIA, project director; Sami M. BaSuhail, AIA, Charles Clements, AIA, and Bob Steel, project managers*
Client: *Robert McGhee, HHMI architect and senior facilities officer*
Engineer: *Thronton Tomasetti (structural); Burt Hill (m/e/p, fire)*
Interior designers: *Rafael Viñoly Architects; Robert McGhee*
Landscape: *Dewberry and Davis; Paula Hayes*

At the top of the lab building, a steel stair—covered by an arched glass skylight—turns and is cantilevered to the roof level. Curved lines of the auditorium (below left) and café (below right) on the ground floor soften hard surfaces.









The glazed walls of the labs (above) allow scientists to view the landscape (below). Viñoly's office designed lab casework and left ceilings free of pipes and wiring.



ridor across the Potomac to Sugar Loaf Mountain, the placement of the lab building and separate conference housing posed a challenge.

More specifically, the program called for creating a campus that would foster interaction between scientists in their laboratories and offices, not to mention areas devoted to dining and socializing, according to the institute's architect and senior facilities officer, Robert McGhee. Viñoly adds, "We were told to forget about hierarchy or tenure—just convey the reality of the excitement of research." In addition to conference accommodations and short-term housing, a residence had to be provided for the director, but not the Pickens mansion: That was too hierarchical and formal for HHMI's vision, says McGhee.

With the assistance of Lars Lerup, the dean of Rice University's School of Architecture, in Houston, McGhee sent a dozen architects requests for qualifications. Once a short list was narrowed down to four, including Pelli, Clarke, Pelli; Tod Williams Billie Tsien; and Kallman McKinnell & Wood, HHMI asked the architects to come up with concepts. Two review sessions subsequently took place—the first at HHMI headquarters, the second at each of the architect's offices. Viñoly and Jay Bargmann, AIA, Viñoly's project director for HHMI, both note that the program was one of the most impressive they had encountered because of its philosophy and detail. Nevertheless, nothing is easy: McGhee relates that when he visited Viñoly's office two weeks before the final presentation, "They had laid out one-story hexagons across the site. I said, 'We're not doing that,' because it was too spread out for interaction." Then to McGhee's surprise, "Viñoly threw the work away, and came up with a provocative scheme within the next two weeks." Explains Bargmann, "We changed the approach, designing from the inside out, and we put the offices on the outboard area of the labs, so that offices and labs and nature would interrelate."

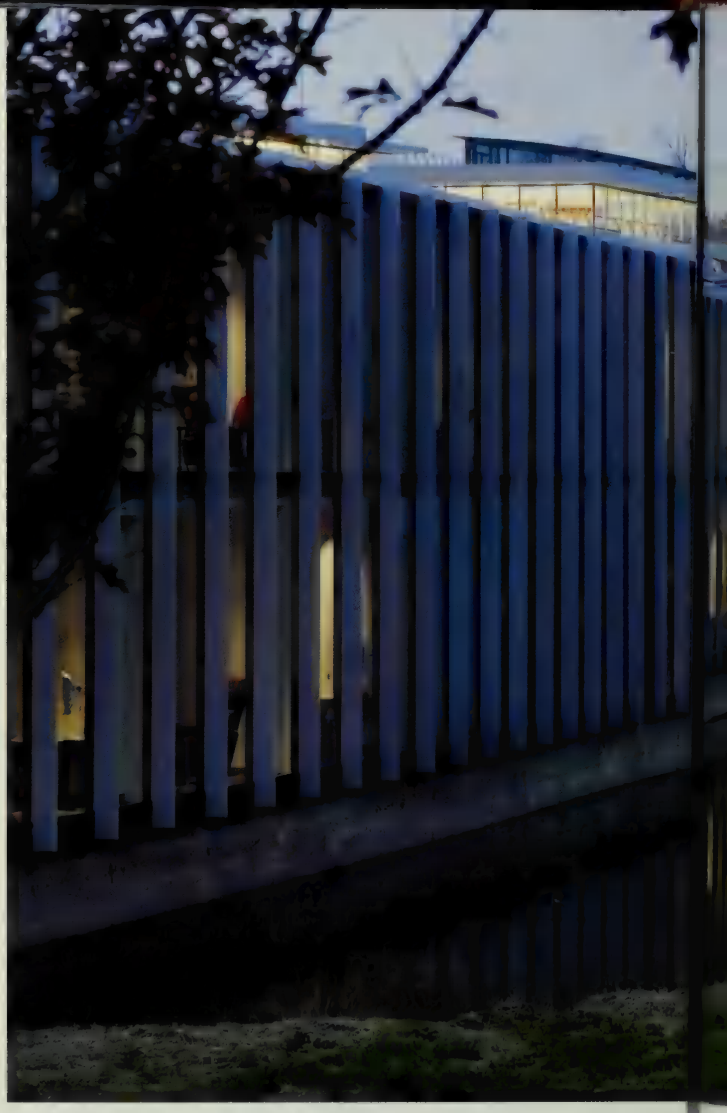
The gently serpentine building is composed of three floors embedded in and terraced down a slope to the tributary. Two skylighted staircases divide it into thirds and help give a sense of orientation to the occupants. The lowest level, defined on the exterior by curved fieldstone walls, opens into a lobby leading to the auditorium, large seminar room, as well as dining room, pub, and other communal facilities. Throughout, square, glassed-in



Corridors edging the labs are formed of structural glass, so that columns, beams, and walls are transparent for 88-foot spans.







The poured-in-place concrete structure of the conference housing (top) is partially concealed by earth berms; its lobby (above) features limestone walls and marble floors. The longer-stay housing units (below) are clad in fieldstone and cementitious wood.



atriums bring additional daylight inside. On the second and third floors, labs overlook glazed corridors, which in turn reveal views of roof gardens and the distant landscape. Along these two tiers of roof terraces, the architects situated offices clustered in square glass pods, where computer research and meetings could occur near the actual laboratories themselves. The poured-in-place concrete and steel hybrid structure for the "landscape building," as it is called, gives way to structural glass extending along the serpentine corridors that separate the labs from the offices and grassy terraces. Glass beams, columns, and walls of low-E clear glass allow the scientists unimpeded glimpses of pastoral landscape for dazzling, 88-foot-long spans.

The architects located the back-of-the-house mechanical operations at the rear of the first and second levels of the building. The long, deep swath of raw space, which the architects have dubbed "the factory," contains 22-foot-high, floor-to-floor windowless volumes on the first level and 17-foot-6-inch-high spaces on the second. Heavy-duty elements, such as loading docks, substations, condensers, chillers, boilers, and air-handling equipment, can be found here, along with isolation slabs to prevent noise or vibration from extending into the labs.

On the third level, the architects inserted the parking garage for 300 cars in the back portion; its planted roof helps build out the top of the slope for the building. From the stairs on this floor, visitors can ascend to



On the north side of the conference housing, 96 rooms on two levels follow an Aaltoesque curve around the man-made storm-water retention pond. Another pond is adjacent to the lab building. Nearby is the director's house, also designed by Viñoly.

the topmost roof terrace—where they step up onto a grassy lawn to discover in a surreal way that they are the backyard of the Pickens manor house.

In order to create a proper investigative environment, Viñoly and his team selected materials that impart a luxurious, Miesian simplicity. Basaltina floors in the lobby give way to a warmer mesquite wood in the café and bar, and hornbeam wood on the floor of the dining room. Frosted-glass panels enclose the circular auditorium, while a reddish makore wood clads its interior surfaces, handsomely complementing the plushly upholstered red seats for 250.

ACCOMMODATIONS RECAPTURE A CLASSIC MODERN AESTHETIC IN A COMPLEX THAT REFINES 1960S MEGASTRUCTURAL IDEAS.

Across from the glazed entrance to the lab building, another swerving fieldstone wall guides visitors into the curvilinear, two-story conference center that arcs around a man-made pond. Here, modestly proportioned guest rooms with Aaltoesque furnishings overlook the water and woods. Similarly, 53 transient-housing units of studios to four-bedroom duplexes, with fieldstone walls alternating with cementitious wood paneling, recall the San Francisco Bay Region Modernism of the 1940s.

If the residential quarters seem to recapture a classic Modern aesthetic, the complex as a whole represents a refinement of certain High Modern, megastructure-meets-escarpment schemes of the 1960s, such as the riveting but unbuilt Sunset Mountain Park Urban Nucleus designed by Cesar Pelli for Santa Monica, California, in 1965, when he was at Daniel Mann Johnson Mendenhall, or John Andrews's 1967 Scarborough College in Ontario, Canada, a muscular, concrete behemoth. Viñoly demonstrates that this almost-forgotten legacy can still be mined for effect today.

At Janelia Farms Research Campus, scientists can convene to work on pathbreaking discoveries in the neurosciences, genetics, immunology, or cell biology without feeling they have to live around the clock in a large, rectilinear steel file drawer. While it takes time to assess design success, the initial reaction to the luxurious and intellectual setting has been extremely positive, reports McGhee. That said, it is too bad the clients and the architects haven't figured out a use for the Pickens manor house. The main residence and the carriage house could be converted easily into an orientation space and museum of science. Of course, it would cost money (this project did hit the $500 million mark). But as a public outreach program, it would be worth it. ■

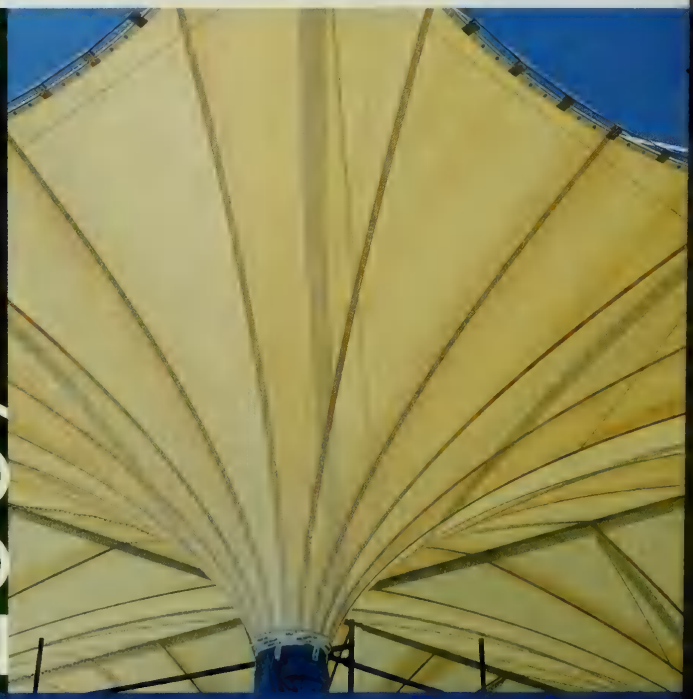
For Sources, go to page 202, and Projects at archrecord.construction.com.

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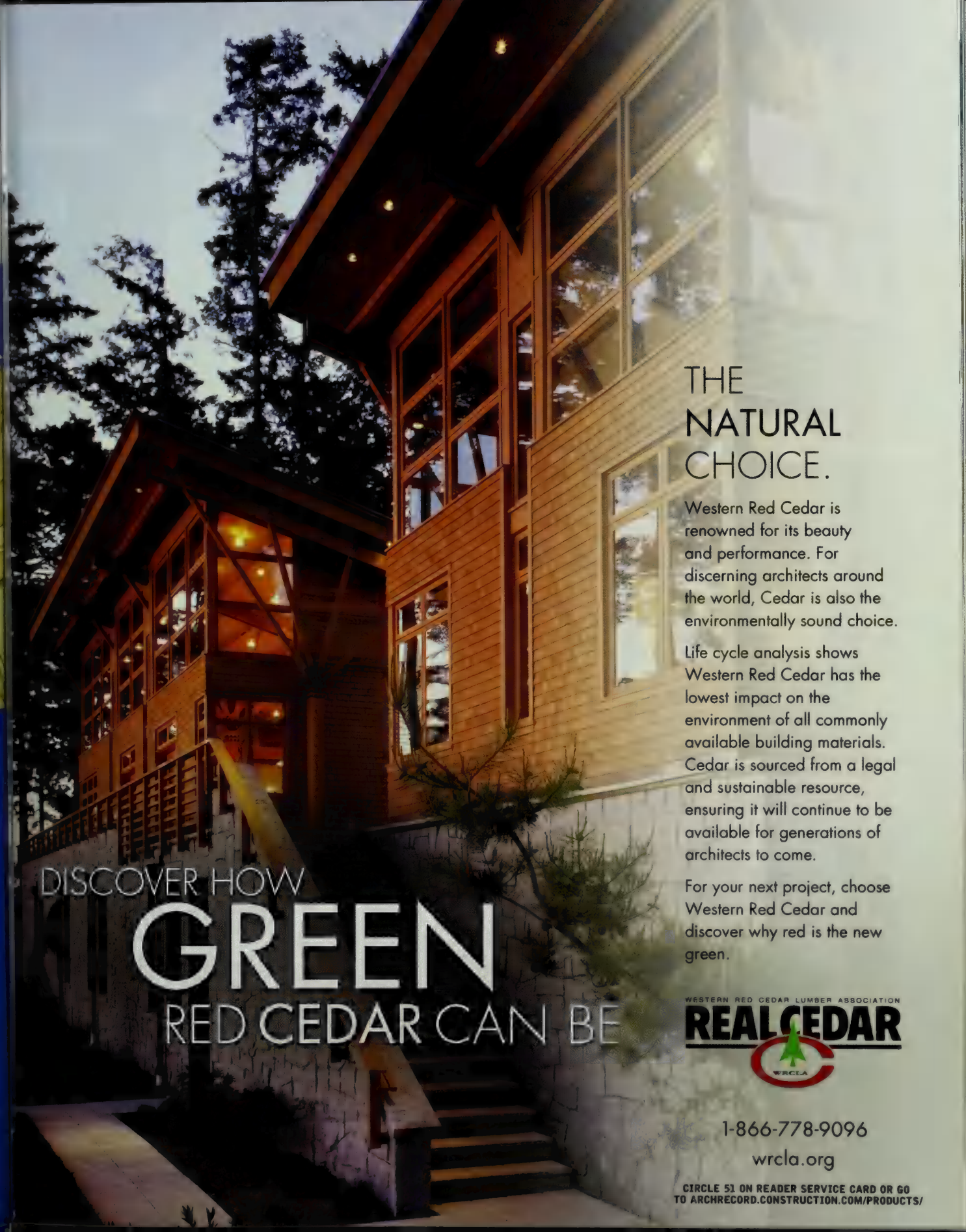
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GOVERNMENT BUILDINGS

Open and Shut

In pursuit of green benefits and political symbolism, government agencies embrace glazed curtain walls and skylights—as well as the brise-soleil.

By James Murdock

In many respects, Brooklyn's U.S. Post Office and Courthouse is the quintessential late-19th-century federal building. Opened in 1892, and expanded several times since, its Richardsonian Romanesque exterior—signaled by rusticated, granite walls—conveys strength and unanimity. Other federal structures built around the same time throughout the still-growing nation incorporated regional materials and vernacular quirks.

A careful balance between shared forms and local differences in federal architecture persisted into the mid 20th century, when a watered-down Modernism ushered this equilibrium out the door. But the pendulum is again in motion. The U.S. General Services Administration's Design Excellence Program, now in its 17th year, aims to improve the quality of government buildings—often with an environmentally sustainable edge to attain LEED Silver certification. The latest generation of buildings show a renewed interest in context, thanks to their sensitivity to climate and geography. But do they project a shared symbolic message?

The U.S. Census Bureau Headquarters, in Suitland, Maryland, says quite a lot. Its facades are fully glazed, but also screened by a wood brise-soleil. Glass holds a powerful, if unrealistic, symbolism in the realm of government architecture: openness and transparency. It's refreshing that even in this especially security-conscious age, a building can present such an inviting face. Then again, the bureau is located on a wooded site outside Washington, D.C., out of the public eye, and the attractive brise-soleil—while there to cut solar glare—also helps it hide among the trees.

State and local agencies seem to be pursuing a similar path. Redmond City Hall, in Washington State, includes a council chamber wrapped by a glazed curtain wall—as well as shaded terraces that overlook the grassy site of a future city park. Even abroad, in Europe, an open mood prevails. The Limerick County Council Headquarters, in southwest Ireland, presents a glazed facade to a shopping center and busy road beyond, and it too is sheltered by a brise-soleil. Interestingly for a nation seeking to redefine itself on the global stage, this combination suggests both innovation and circumspection.

And then there is the stone courthouse in downtown Brooklyn, its interiors largely restored to their original state after decades of decay. At its core is a public atrium capped by an expansive skylight. In 1913, not long after this radiant space first opened, Louis Brandeis famously stated, "Sunlight is said to be the best of disinfectants." While embracing this principle, and giving it a new environmental spin, the current generation of government buildings have tempered transparency with practicality. ■



U.S. CENSUS BUREAU

Suitland, Maryland

By using a facade screen, a curvy plan, and narrow floor plates, Skidmore, Owings & Merrill makes a 2.5-million-square-foot headquarters feel smaller than it actually is.



REDMOND CITY HALL

Redmond, Washington

MulvannyG2 balances formal elements with playful flourishes that add a touch of character to a developer-built city hall in an area known for innovative businesses.



LIMERICK COUNTY COUNCIL

Dooradoyle, Ireland

As part of Ireland's series of new county and town halls, Bucholz McEvoy Architects pursue a green agenda that reflects the country's revived economy and place on the global stage.



U.S. POST OFFICE & COURTHOUSE

Brooklyn, New York

R.M. Kliment & Frances Halsband Architects restore the interiors of a historic courthouse, and insert offices into an adjacent wing, to provide a new home for four government agencies.

For more information on these projects, go to Building Types Study at **archrecord.construction.com**.

One: U.S. CENSUS BUREAU
Suitland, Maryland

Skidmore, Owings & Merrill breaks apart floor plates and clads facades in wooden fins to mask a building's massive size.

By Sara Hart

Architect: *Skidmore, Owings & Merrill—David Childs, FAIA, Gary Haney, AIA, Stephen Apking, AIA, design partners; Peter Magill, AIA, management partner; Elias Moubayed, Nazila Shabestari Duran, AIA, project managers*
Client: *U.S. General Services Administration*
Design-build architect: *Skanska USA, with HKS Architects*
Associate architect: *Metropolitan Architects and Planners*
Consultants: *Wiles Mensch, A. Morton Thomas and Associates (civil); Walter P. Moore (structural); Southland Industries, GHT (m/e/p); CDC (curtain wall); EDAW (landscape); Domingo Gonzalez Associates, Cline Bettridge Bernstein Lighting Design (lighting)*

Size: *2.5 million square feet*
Cost: *$331 million*
Completion date: *January 2007*

Sources
Glazed curtain wall: *Viracon; Enclos*
Concrete panels: *Artex Systems*
White oak blades: *Sentinel Structures*
Ipé boards: *ISEC*
Doors: *Herculite; Elmes*
Glass fins: *Vanceva*
Raised flooring: *Tate Access Floors*
Lighting: *Philips; Nieghthardt; Zumtobel; Prudential; Edison Price*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.



SOM took a 1,100-foot-long footprint and curved it (above). A brise-soleil made of wooden fins—dubbed the "bark veil"—either allows views straight into the interiors or helps mask the building's scale (opposite).

Every 10 years since 1790, the public and media have turned attention to the U.S. Census Bureau's panoptic data collection about individuals, households, and businesses. The data are analyzed, disseminated, and debated—essential work for a democracy. Today, the bureau's role reaches way beyond its decennial undertaking. Calling itself "America's Fact Finder," it conducts surveys on economic and social issues.

Although the bureau maintains 12 regional offices, 6,000 employees are headquartered in Suitland, Maryland, outside Washington, D.C. With the agency having outgrown its aging 1942-vintage home, the General Services Administration (GSA) commissioned Skidmore, Owings & Merrill (SOM) to design a new, 2.5-million-square-foot complex on an adjacent, 80-acre wooded site.

Sara Hart is a New York–based writer and a former senior editor of RECORD.

Program

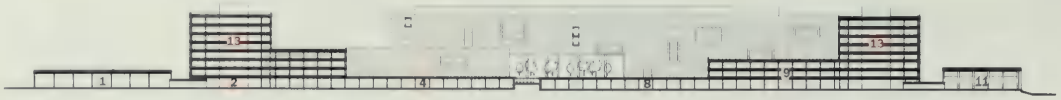
The client had an unusual requirement regarding flexibility. Every 10 years its head count triples for the duration of the census-taking process. The bureau asked SOM to create a system for accommodating this temporary, albeit gigantic, expansion. In addition to addressing the needs of a technology-driven enterprise, the program also reflected the GSA's requirement that new facilities earn a LEED Silver rating.

But the scope of this project extended beyond physical expansion and system upgrades. The Census Bureau wanted its headquarters to be a model of worker productivity and a magnet to attract and retain skilled professionals. Thus, it requested additional amenities, including a health-care center, library, gymnasium, cafeteria, credit union, and conference center.

Solution

SOM splayed the building's overall volume into two wings that slot







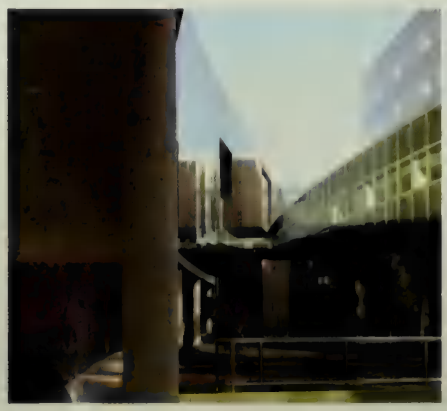




1. *Delivery area*
2. *Cafeteria*
3. *Conference center*
4. *Training center*
5. *Auditorium*
6. *Credit union*
7. *Lobby*
8. *Fitness center*
9. *Health unit*
10. *Café*
11. *Library*
12. *Interior office*
13. *Open-plan office*
14. *Shared space*
15. *Roof garden*
16. *Courtyard*
17. *"Street" corridor*
18. *Below-grade parking*

together around a central court. Narrow, 41-foot-wide floor plates give the building an almost European feel and ensure that every workstation receives ample daylight, helping lessen electricity needs. Outside, a brise-soleil shades the curtain wall. Vertically mounted fins—made from wavy, marine-grade, white oak panels—reduce solar glare indoors and establish a rhythmic pattern across the facades.

Inside the office areas, SOM organized individual workstations into open-plan "bull pens," flexible areas that can be expanded from four workstations to 10 when the bureau staffs up for census-taking. To codify the building's different functions and assist in orientation, SOM's interior design team, led by Stephen Apking, developed a strategy composed of three well-defined elements: the Street, the Boxes, and the Color Spectrum. The Street is a ground-floor corridor connecting program amenities to work areas. Above ground, the Boxes rise through the building's two floors to connect vertically linked functions with staircases and elevators. Workstations at the building's perimeter are rendered in contemplative neutral tones, but the Color Spectrum morphs from this subdued palette into vibrant colors that guide people through interior zones: Blue areas lead to green zones, followed by yellow, orange, and red. This paint system eliminates the sameness that a monochromatic



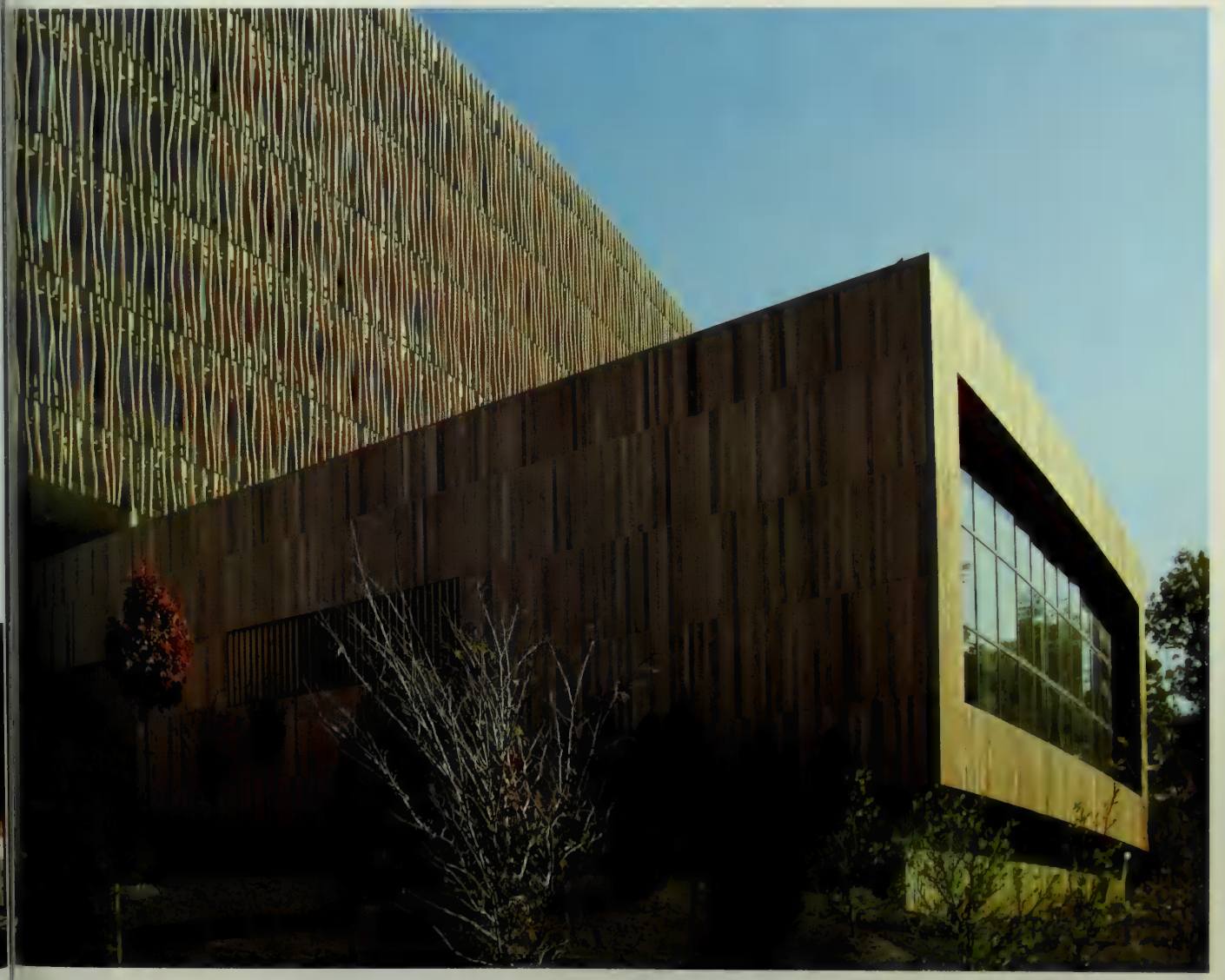


Pictured from the west (near right) and east (far right), a courtyard at the building's center is open both to the sky as well as the north and south elevations. SOM's design team, led by partner Gary Haney, AIA, created this space by splaying the building's mass into two narrow wings.

Composed of thin white oak boards, the "bark veil" facade screen diffuses solar glare indoors (near right). A low-roofed entry volume, on the southeast elevation, allows views into the center court (far right). An auditorium volume projects from the southwest elevation (below).

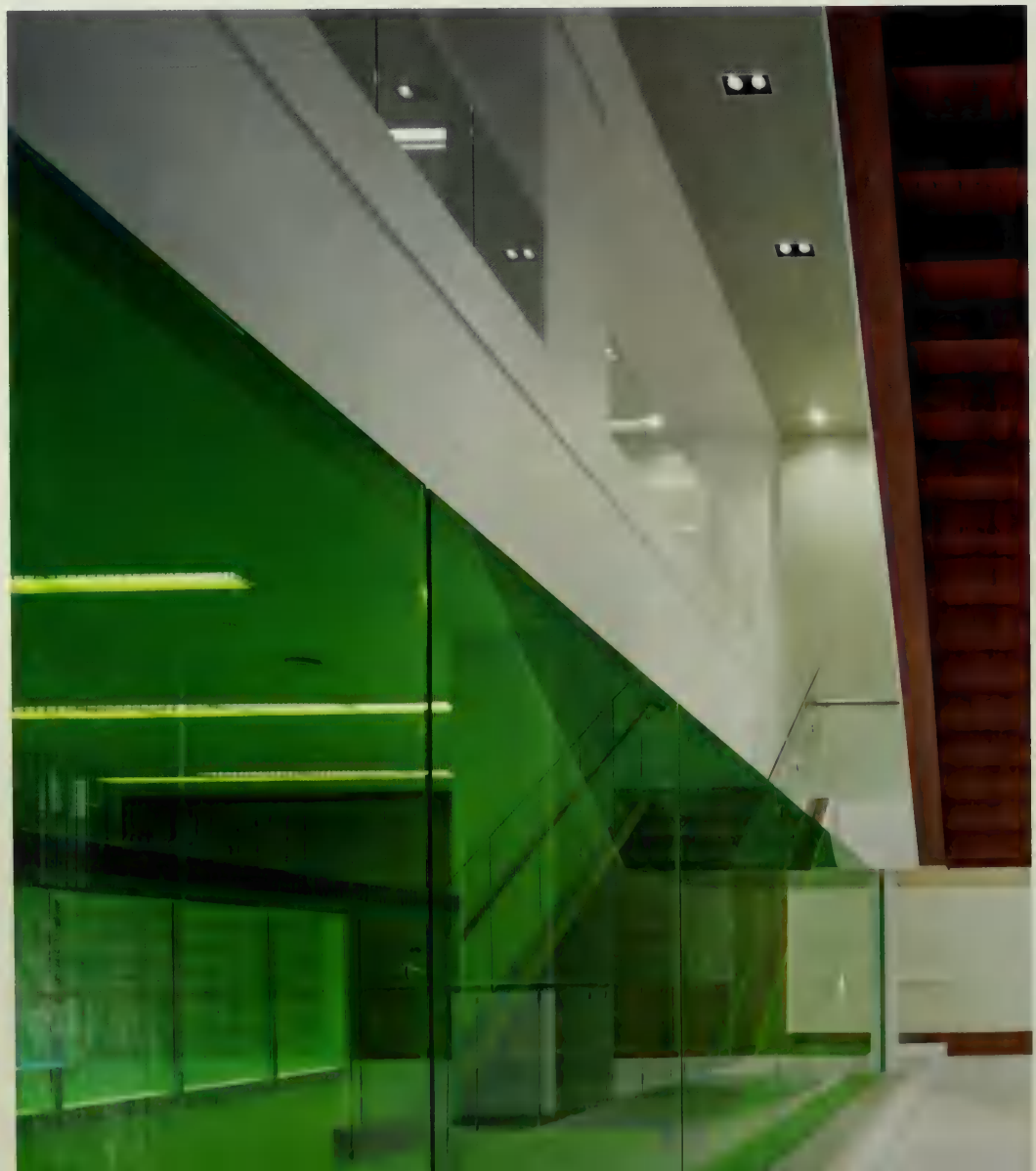












At perimeter office areas, the color scheme remains muted (above right), but deeper within the building, its palette takes on more vibrant shades, including yellow in the credit union (above left) and green in vertical circulation areas (left). The different colors help orient visitors as well as employees.

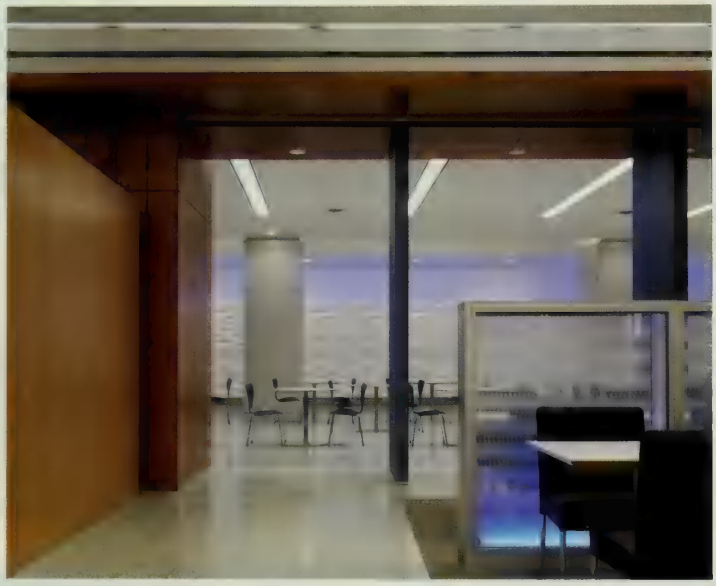
scheme would have generated over such a vast building.

In an unusual move, the GSA adopted a "bridging" design-build delivery method. This approach combines the strengths of design-build with the advantages of traditional design-bid-build. After SOM developed the construction documents to roughly one-third completion, the project went out to bid for design-build firms. (HKS Architects and Skanska USA received the commission.) Jag Bhargava, project executive for the GSA's Property Development Division, says that this method allowed the contractor to begin work before construction documents were complete, shaving a year off the project's delivery date.

Commentary

Consider the daunting challenge of putting a roof over a small city, population 6,000. No matter how one manipulates the envelope and interiors, the vastness of a 2.5-million-square-foot requirement remains. SOM cleverly took a 1,100-foot-long footprint and curved it. This move alone humanized the building. A straight line the length of almost four football fields would have created a one-point perspective with an infinite vanishing point, resulting in psychological discomfort for the building's occupants. But the curve set up an opportunity for a series of visual events along the way. SOM's interior design team carved out spaces and applied textures to create a rhythm that beautifully undermines an otherwise harsh reality.

The wood brise-soleil, or "bark veil," as the architects call it, is best understood in person. Viewed straight on, its fins wiggle in front of the curtain wall, revealing the interior. But as one walks along the facade and views it obliquely, these elements become camouflage, and the giant structure begins to dissolve into its wooded environs. SOM and its partners pulled off a magic trick that should be a role model for future buildings of such immensity. ■





Brazilian ipé hardwood lines the cafeteria walls (left). Beyond, the "Street" links all program areas (below). An origamilike relief—made of laser-cut, medium-density board—casts shadows that mitigate the corridor's length.

Two: REDMOND CITY HALL

Redmond, Washington

MulvannyG2 balances dignified and playful elements in a city hall that reflects its community's innovative spirit and picturesque landscape.

By Randy Gragg

Architect: *MulvannyG2 Architecture—Ming Zhang, design principal/lead designer; David Glassman, project manager; Peng Liew, project architect; Peter Lian, project designer*
Client: *Redmond Community Properties*
Interior architect: *MulvannyG2 Architecture (public spaces); Perrault Interiors (offices)*
Consultants: *MacDonald-Miller Facility Solutions (mechanical engineer); Sasco (electrical engineer); Magnusson Klemencic Associates (civil and structural engineer); Hewitt Architects (landscape); Lighting Group Northwest (lighting); JGL Acoustics (acoustics)*

Size: *114,068 square feet*
Cost: *$20 million*
Completion date: *December 2005*

Sources
Aluminum wall panels: *Alpolic*
Elastometric roofing: *Sarnafil*
Aluminum curtain wall and entrances: *Walters and Wolf*
Glazing: *Viracon*
Wood doors: *VT Industries*
Metal doors: *Curries*
Locksets: *Assa Abloy*
Hinges: *McKinney*
Ceiling panels: *Hunter Douglas*
Wall coverings: *Knoll*
Toilets: *Caroma*
Water-free urinals: *Falcon*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.

Like many fast-growing suburbs, Redmond, Washington, knew plenty about constructing roads and fire stations but little about making civic buildings. Home to both Microsoft and Nintendo, this town—16 miles east of Seattle—saw its population jump by nearly one third, to 46,000 people, in the past 20 years. At the same time, the city's staff more than doubled, growing into seven different facilities. Operational efficiency demanded consolidation. But the design-bid-build process, once the norm for civic facilities, carries financial and political risks in today's environment of spiraling construction costs. So Redmond chose a path increasingly popular with municipalities nationwide: forming a nonprofit corporation that finances and constructs a building, then leases it back to the city.

Program

The client wanted a new gateway municipal facility located on the main arterial road. Part of an existing 17-acre government campus, the site abuts the Sammamish River and 10 acres of open space that the city will turn into a park. The program was simple: a 105-seat council chamber and offices for the 270-person municipal staff, with expansion space for 80 more people. The city also wanted the project to earn a LEED Silver rating.

Randy Gragg is the architecture critic for The Oregonian *in Portland, Ore.*



Anchoring the southwest edge of a municipal campus (above), City Hall is surrounded by parkland abutting the Sammamish River (opposite, top left).

Solution

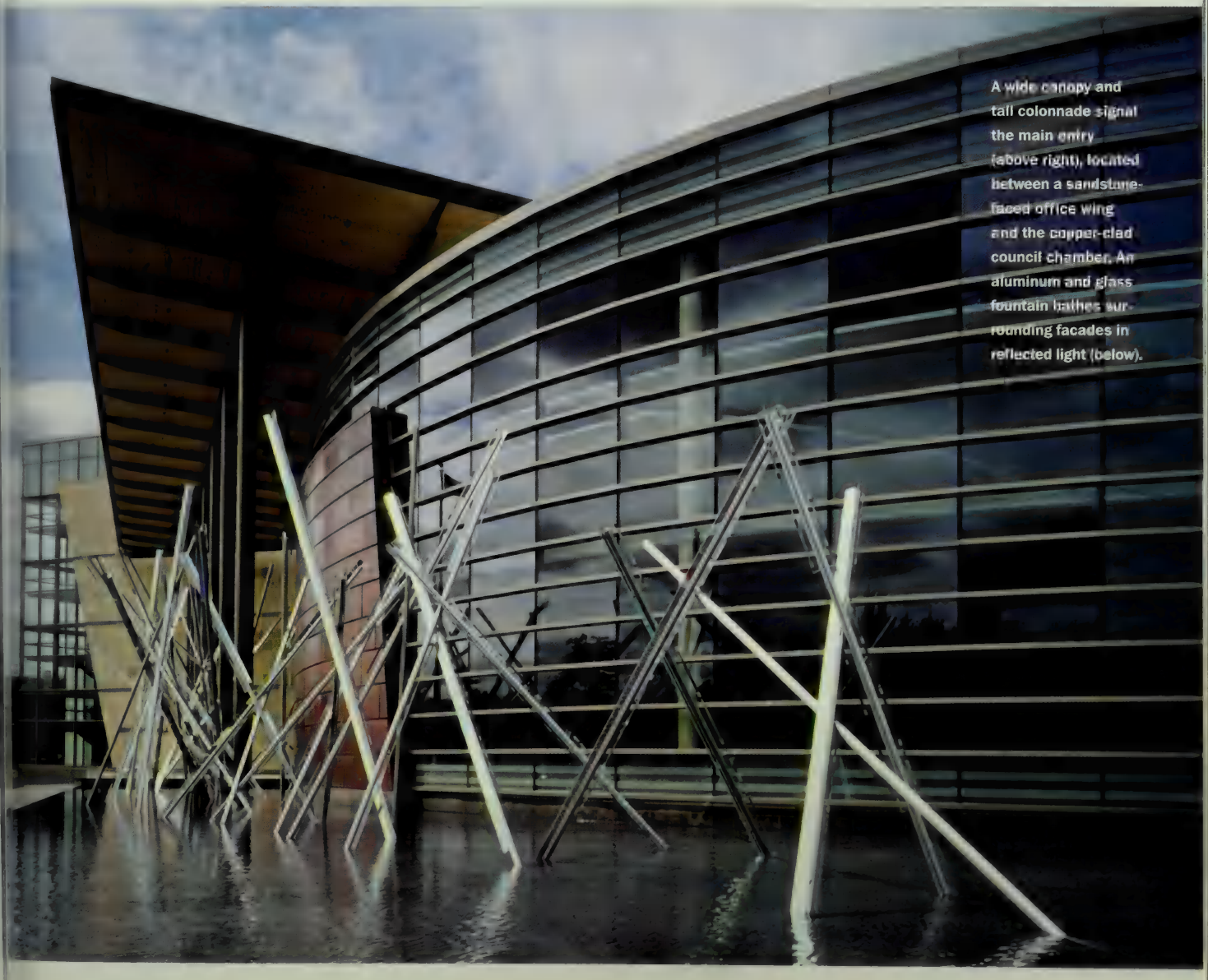
The city's nonprofit Redmond Community Properties hired Wright Runstad & Company as a fee developer, which in turn held a design competition juried by its own staff, the mayor, and the city council. Unlike other finalists, who responded with boxlike structures, MulvannyG2 split its building into two steel-framed wings, one oriented south to face the main road, the other toward the river. A double-height lobby connects them, offset at one corner by an asymmetrical, drum-shaped council chamber.

Lead designer Ming Zhang hoped to create "a new, 21st-century image for government," an environment that projects both dignity and the friendly informality epitomized by Redmond's culture of boundary-busting innovation. A grand, three-story colonnade with a wide canopy roof defines the main entry: Pivot joints connecting its steel columns offer playful, erector-set versions of capitals and bases, while soft Algerian sandstone clads the facade along this elevation. By contrast, the building's roadside face is covered in precast stone, dignified enough for passing cars but without real stone's cost.

The council chamber volume stands almost as a separate entity at the building's northeast corner. Zhang again balanced formality with friendly accessibility. Copper panels facing the entry signal "civic importance," while a floor-to-ceiling glass curtain

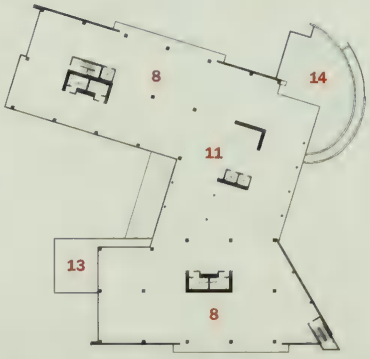




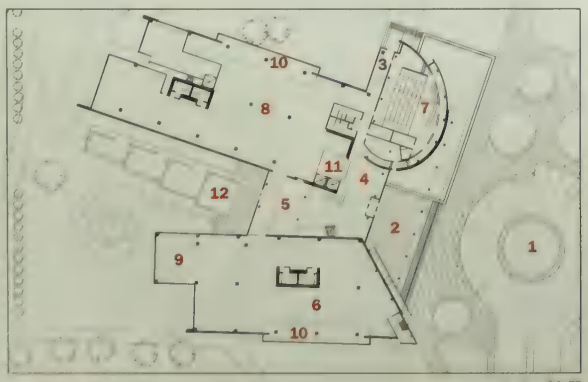


A wide canopy and tall colonnade signal the main entry (above right), located between a sandstone-faced office wing and the copper-clad council chamber. An aluminum and glass fountain bathes surrounding facades in reflected light (below).





THIRD FLOOR



FIRST FLOOR

N 0 30 FT
9 M.

1. *Public plaza*
2. *Main entry*
3. *Side entry*
4. *Reception*
5. *Gathering space*
6. *Cafeteria*
7. *Council chamber*
8. *Offices*
9. *Loading dock*
10. *Atrium*
11. *Elevator lobby*
12. *Public courtyard*
13. *Roof terrace*
14. *Roof*

A glazed curtain wall wraps the curving southeast edge of the council chamber, allowing views out to a fountain at the building's main entry—and symbolizing governmental transparency (above). This drum-shaped volume energizes the floor plan.

wall, facing the park, lets soft northern light into the chamber and symbolizes government transparency.

Zhang's overarching goal was to "link humans to nature." Accordingly, the lobby brings some of the building's grand exterior scale indoors. Two glass curtain walls define an atrium between the office wings. Window bays and terraces offer plenty of options for city staffers to enjoy park views and a breath of fresh air. The space opens westward to a patio and a storm-water swale, topped by Zhang's most overt nod to his Chinese heritage, a zigzag bridge. This traditional feng shui feature is intended to slow a person's path through nature.

Commentary

Overall, the building's relationship with the outdoors is its greatest success. The public spaces' airy connections with the landscape promise to ease the pain of business rituals such as zoning plan reviews. Sadly, though, Zhang was unable to exploit the rich indoor/outdoor connections for the building's energy performance. Operable windows, for instance, were eliminated by the developer early in the process due to cost. Limited sunshading on south-facing windows, moreover, promises steep summertime air-conditioning bills. And the 60-foot width of the office bays was clearly determined by the developer's pro forma numbers rather than by a desire for optimal daylight exposure and modular desk layouts; sunlight falls well short of the building's deepest recesses. This climate is too easygoing to settle for only LEED Silver. Public buildings should set higher standards.

MulvannyG2 pushed hard—and in many ways succeeded—in giving Redmond a 21st-century city hall. But performancewise, the developer-led process produced a 20th-century building. Redmond's lease term lasts 30 years—impressively long by commercial office standards, but far too short for a city hall. Other municipalities interested in pursuing similar leaseback deals should demand longer payback horizons. ■

MulvannyG2 splayed the building plan into two wings, locating the main entrance lobby at their junction (below left). The council chamber abuts this volume; copper cladding on its exterior presents a formal face toward the entry (below right). Glazed on both sides, the lobby draws visitors through the building to a public garden (right); from there, a zigzag path leads people slowly to the Sammamish River. MulvannyG2 designed only the main building and its public spaces, including the landscaping; another architect, Perrault Interiors, designed the office space.







Three: LIMERICK COUNTY COUNCIL
Dooradoyle, Ireland

Bucholz McEvoy Architects creates a contemporary, green county seat in the suburbs near one of the Emerald Isle's largest cities.

By Raymund Ryan

Architect: *Bucholz McEvoy Architects—Karen McEvoy, Merritt Bucholz, project directors; Graham Petrie, project architect; Sabine Klingner, Jana Scheibel, Jim Luke, Mary Louise Kelly, design team*
Client: *Limerick County Council*
Consultants: *Michael Punch and Partners (structural); Buro Happold (building services, acoustical); Pritchard Themis (lighting); RFR (atrium enclosure engineer)*

Size: *76,424 square feet*
Cost: *$30.9 million*
Completion date: *September 2003*

Sources
Atrium structure: *Seele Austria*
Curtain wall: *Duggan Systems; Schüco*
Timber trusses: *Wiehag*
Metal roofing: *Kalzip*
Windows and skylights: *Seele Austria; Schüco*
Doors: *Seele Austria; Dorma; Skelly Doors; Gem Manufacturing*
Hardware: *D-Line; Dorma*
Acoustical ceilings: *British Gypsum*
Paints and stains: *Keim Paints*
Paneling: *Gem Manufacturing*
Stone floors: *Carlow Stone*
Floor and wall tile: *Top Cer*
Resilient flooring: *Marmoleum*
Raised flooring: *Hewetson Floors*
Lighting: *ERCO; Concord*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.



The Limerick County Council Headquarters belongs to an impressive series of new local government buildings erected throughout the Emerald Isle during the past decade, structures that gather council offices together, for the first time, in signature buildings. It was designed by the American/Irish duo Merritt Bucholz and Karen McEvoy. This husband-and-wife team established their practice in Dublin after winning a competition to design Fingal County Hall [RECORD, August 2001, page 98]. Just before the completion of that, their first building, Bucholz McEvoy Architects was awarded the Limerick commission through an interview process.

Program

Limerick's new county hall gathers together nearly 300 local government officials working in nine departments that were previously scattered across several locations. In addition, the building provides a council chamber for 29 locally elected representatives. Computerization, increasing informality, and a less homogenous society suggested a more open architecture than in the past.

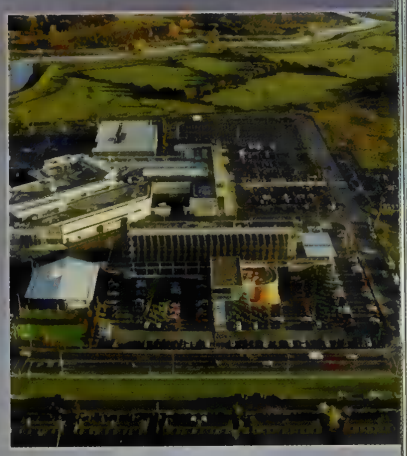
Located in Dooradoyle, a suburb of Limerick, the County Headquarters is surrounded by the vast parking lot of a shopping center, across a busy road from tract houses. Like many places in Ireland, the site was rural until 15 years of the Celtic Tiger's rapid economic growth transformed it. Bucholz McEvoy considered its project in the context of this evolving landscape. The resulting design focuses at the scale of both the suburban context and that of individual workstations. Natural ventilation, lighting, and climate control all aim for new environmental standards in Irish governmental architecture.

Solution

The architects set the bulk of the building back from the road, dividing the interstitial ground into parallel strips. Alternatively landscaped or used for parking, these striations tilt up and down, partially concealing the automobiles within this new terrain. A pierlike entry pavilion juts toward the road from the building's primary mass; an adjacent volume, clad in terra-cotta tiles, houses the council chamber at the southernmost corner of the site.

Rising from its bipartite base, the bulk of the council headquarters presents itself as a four-story, concrete-framed structure clad in an expansive glass curtain wall. Facing southwest, the upper three floors are screened by an external assemblage of steel and laminated Scots pine that

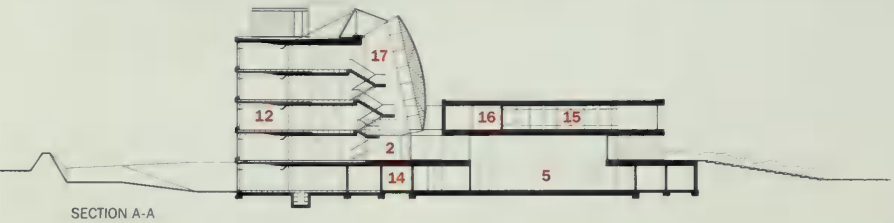
Raymund Ryan is curator of architecture at Pittsburgh's Carnegie Museum of Art.



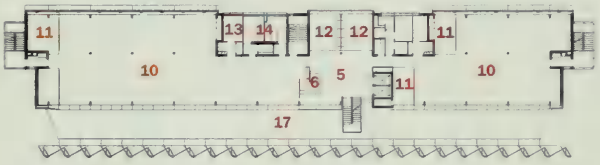
The main entry projects from the southwest elevation (opposite) into parking and landscaping set perpendicular to the main road (above). A public atrium, open at both ends, spans this facade behind a wooden screen (at left).



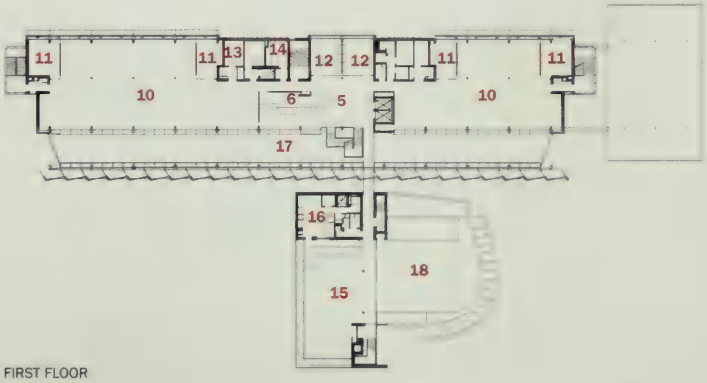
Parallel to the glazed main entry, the terra-cotta-clad council chamber volume projects perpendicular to the building's vertical bulk (left). The tax service offices, located at the southeastern corner, are covered in the same, brightly colored material.



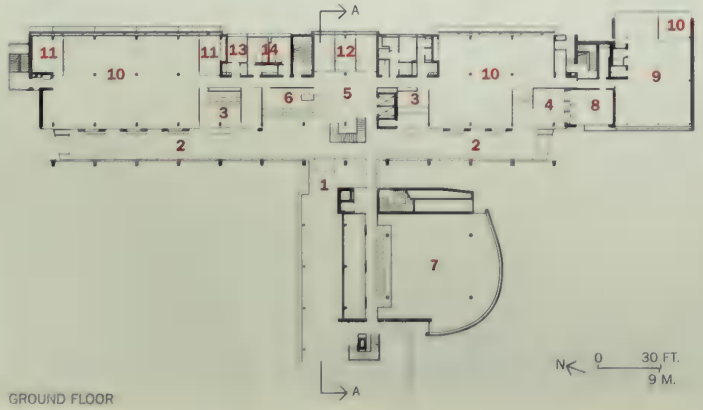
SECTION A-A



SECOND FLOOR



FIRST FLOOR



GROUND FLOOR

1. *Main entry*
2. *Civic space*
3. *Public counters*
4. *Waiting area*
5. *Lobby*
6. *Reception*
7. *Council chamber*
8. *Cash service*
9. *Tax service*
10. *Open-plan office*
11. *Enclosed office*
12. *Meeting room*
13. *Copy center*
14. *Toilet*
15. *Canteen*
16. *Kitchen*
17. *Atrium*
18. *Roof deck*

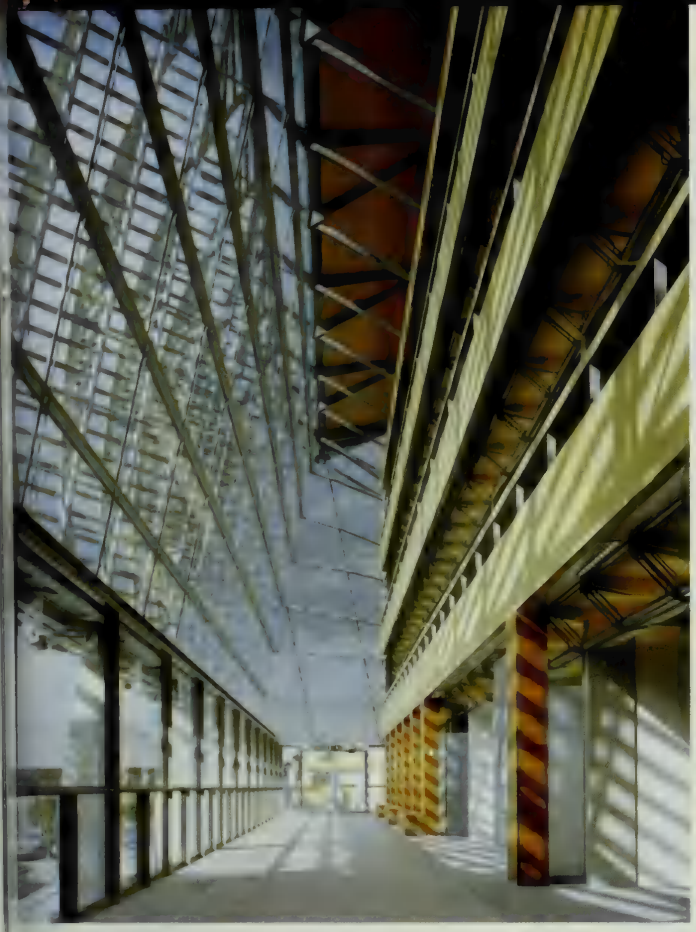
folds, in plan, to protect the interior from summer heat and solar glare. The facade system tilts inward so that the sky is reflected in unexpected ways; it rests, above, on steel prongs whose shape inspired Bucholz to nickname them "hockey sticks."

A linear atrium runs the length of the southwest elevation and is open through four floors of office space. Bucholz McEvoy situated departments with the greatest need for public interface along the floor of this crystalline and invigorating space. An open staircase connects to hallways on each level; high-backed oak benches line these corridors and push out into the void. Functional as well as formal, the atrium acts as a heat chimney and enables a ventilation flow from strip windows on the building's northeast side.

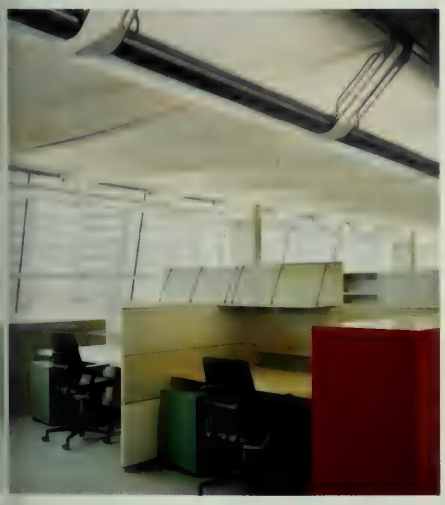
Exposed concrete floor slabs are kept extremely thin and molded into tapering sections that, together with glazed horizontal reflectors, bounce daylight into the workstations. The architects designed these areas with sycamore desks, linen partitions, and suspended fabric panels that allow each worker to manage solar glare independently.

Commentary

Limerick County Council Headquarters presents an assemblage of components gathered from around Europe—symbolizing Ireland's embrace of globalization and technology. (The "hockey sticks," for instance, were fabricated in the Czech Republic, and Paris-based RFR engineered the iconic facade.) Walking through the southwest atrium one is awed by the remarkable outer screen and the quality of space and light that government employees and elected officials enjoy. This innovative facade—"leaning back to catch the sky," as the architects say—achieves a new civic symbolism for Ireland, one that is green in a progressive environmental sense. It also shows the architect's consciousness of place, highlighting Ireland's changeable and dramatic maritime climate. Yet Bucholz McEvoy's real achievement is its integration of design across all scales of the project. ■









A public atrium runs from north to south along the west elevation (top left). At its midpoint, a stair connects all four floors (top right), flanked by wood-backed benches. Fabric ceiling panels above individual workstations allow employees to regulate solar glare (above). Walnut-framed accent lights punctuate white marble tabletops in the council chamber (right). A recessed skylight illuminates the southern wall, which curves in plan.

Four: U.S. POST OFFICE AND COURTHOUSE

Brooklyn, New York

R.M. Kliment & Frances Halsband Architects restore a gem in the heart of Brooklyn, while making sense of complicated security needs.

By James Murdock

Architect: *R.M. Kliment & Frances Halsband Architects—Robert Kliment, FAIA, partner/lead designer; Frances Halsband, FAIA, partner/collaborating designer; Michael A. Nieminen, AIA, partner in charge; Richard L. McElhiney, AIA, project manager; Karl A. Lehrke, AIA, project architect*
Client: *U.S. General Services Administration*
Consulting architect: *Wank Adams Slavin Associates*
Consultants: *Flack + Kurtz (m/e/p, fire protection); Severud Associates (structural); Vollmer Associates (civil); Brandston Partnership (lighting); Cerami & Associates (acoustical, a/v); Kroll Schiff & Associates (security); Integrated Conservation Resources (historic conservation); Walter H. Sobel, FAIA & Associates (courts)*

Size: *575,000 square feet (including 85,000 square feet of new construction)*
Cost: *$200 million*
Completion date: *October 2005*

Sources
Curtain wall: *LBL*
Skylights: *UAD; Fisher*
Paints: *Benjamin Moore*
Stains: *Minwax*
Marble: *Nine Stone Marble Tile*
Lighting: *Rambusch; Neoray; Linear; Zumtobel*

For more information on this project, go to Building Types Study at **archrecord.construction.com**.

Brooklyn was the nation's third-largest city, still a few years away from joining New York City, when the U.S. Post Office and Courthouse opened in 1892. Almost immediately, the government began expanding the building—which housed Brooklyn's main post office and a federal district court—filling the entire block by 1933. But when the court left in the 1960s, the building entered a steady decline, hastened after the Postal Service transferred its sorting facilities to Long Island in the 1980s. The U.S. General Services Administration (GSA) eventually acquired the complex and, after considering its demolition or sale to developers—both plans opposed by community groups and the late Senator Daniel Moynihan—decided to restore it for a diverse group of federal tenants.

Program

The GSA paired the U.S. Bankruptcy Court—which initially needed courtrooms, judges' chambers, and offices for a staff of 60 clerks—with the U.S. Trustee Office, which provides pre-bankruptcy services to litigants. The U.S. Attorney's Office (USAO) also received space. And, although it was no longer the landlord, the Postal Service wanted to maintain a retail branch in the building.

Decades of neglect and makeshift alterations had marred interior spaces. In the 1892 portion, an atrium skylight was blocked, and the detailing—which reflected both Richardsonian Romanesque and Beaux-Arts styles—moldered behind drop ceilings and drywall. The GSA hired R.M. Kliment & Frances Halsband Architects to restore the atrium and reconfigure other spaces. Only the landmarked exterior facades, which belong to a typology of federal buildings erected during the late 1800s, was left untouched.





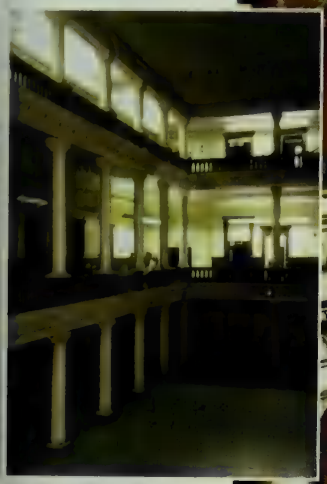
1. *U.S. Courthouse and Post Office*
2. *U.S. Courthouse*
3. *N.Y. Courthouse*
4. *Brooklyn Borough Hall*
5. *Cadman Plaza Park*

Solution

Rather than subdivide large, 1892-vintage courtrooms, or add levels onto the roof, Kliment & Halsband built into the 1933 structure's central courtyard in order to create extra space. The architects clad their steel-framed, four-story addition in a glass curtain wall, providing nearly all of the USAO offices with access to daylight and forging a strong visual tie to the conjoined 1892 structure. Below it, they added two courtrooms and a law library, all illuminated by skylights punched into the courtyard's floor.

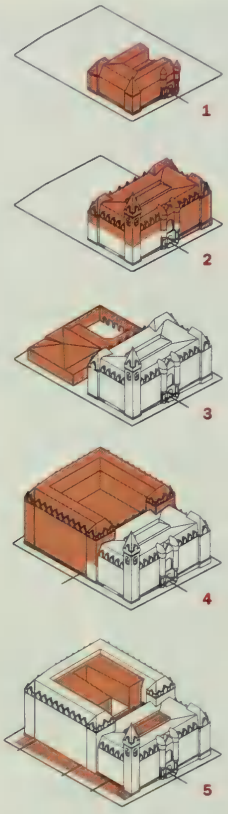
Inside the Bankruptcy Court, which occupies the oldest structure, the design team restored two courtrooms and judges' chambers, as well as the atrium. In addition to recreating the original paint finishes, they reinstalled a glass deck that spanned this volume between the first and second floors; below it they located a glass-enclosed clerk intake facility and public records room.

The building's south elevation had contained its main entry. Security requirements mandated that each tenant access its space separately,



Along the building's west elevation (opposite), a ramp defines a new entry sequence facing a plaza. In the atrium, the previous space (above) was completely restored to its 1892 appearance, right down to the paint scheme and moldings (right). The architect uncovered a skylight and reinstated a glass deck that covers the first floor.





Sequence of construction

1. *Original design*
2. *1892*
3. *1916*
4. *1933*
5. *2005*

but the architects succeeded in creating a new, unified entry sequence along the west elevation, facing a public plaza. A granite ramp now flanks this facade, gently rising with the grade from south to north, allowing ADA access to each of three entrances: beginning with the Bankruptcy Court, then the post office, and finally the USAO.

Commentary

Kliment & Halsband performed a commendable job restoring the 1892-era atrium. The marble floors and gold and ocher paint scheme—all bathed in soft daylight that makes artificial lighting unnecessary—fairly gleam. Brooklynites were unable to enter this space for 40 years, and so many lack a point of comparison for its rebirth, but they now can reclaim ownership of a polished gem.

It's a shame, though, that a restored stair at the atrium's eastern end is now restricted to use by the Bankruptcy Court's staff; the architect carefully detailed a new public stair next to the lobby, but this space lacks

In the main atrium, glazed ceilings and walls enclose a public records room (left). The architects partly filled in a 1933-era courtyard to create new offices for the U.S. Attorney, cutting skylights into its floor (below two).

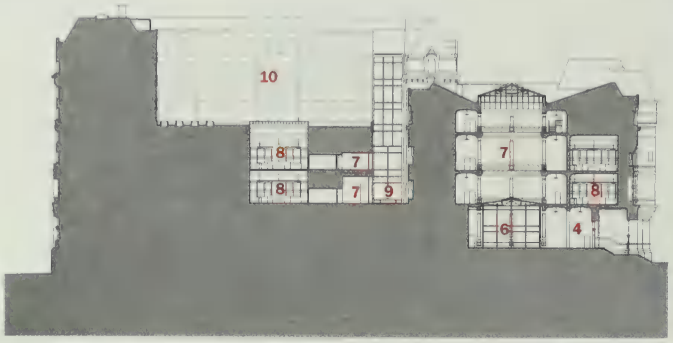




A new stair abuts the Bankruptcy Court entry (above), while a public gallery spans the post office (below right). Skylights illuminate a law library (below left).





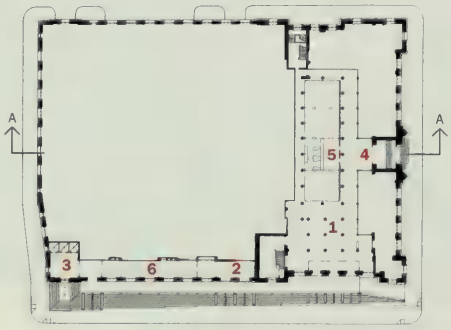


SECTION A-A



SECOND FLOOR

1. *Courthouse entry*
2. *Post office entry*
3. *USAO entry*
4. *Original entrance*
5. *Bankruptcy intake*
6. *Post office gallery*
7. *Waiting area*
8. *Courtroom*
9. *Light well*
10. *Courtyard*



FIRST FLOOR

N 0 30 FT. 9 M.

Skylights draw daylight into a law library (below left) as well as new courtrooms in the 1933 building (top right, above ceiling at rear). The architect restored an 1892-era courtroom (right), adding a mahogany screen, at left in the photo, to give judges private access to their chambers.







the older one's warmth and intimacy. A bit too barren are twin stairs inserted into the 1933-era courtyard. Although they are open only to the USAO staff, their curiously raw aesthetic, exemplified by uncovered concrete floors, seems unnecessary.

But the project's real shortcomings stem from the client, which was hampered by bureaucracy and bad luck throughout nearly a decade of design and construction. Delays, ironically caused when the first general contractor went bankrupt, coincided with the rise of the Internet, which revolutionized the flow of information in bankruptcy courts and led to staff reductions—in turn creating redundant and obsolete program items. And while the building's facades and roofs were inspected before interior work began, crumbling stone and leaks have since become a serious problem—so much so that the USAO delayed moving into its offices, and the entire complex was surrounded with scaffolding to protect pedestrians.

Hopefully, the GSA will engage Kliment & Halsband anew to restore the exteriors and convert underutilized interior spaces, such as the public records room, for other functions. The architect's successes elsewhere in the building leave no doubt it is up to the task. ■



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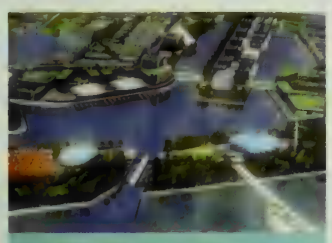
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Architectural Technology

Less Than Zero (or how to design a carbon-neutral world before it's too late)

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169 **Tech News and Reviews**



The city of Dongtan, China, aims to be carbon neutral (page 162).



Toyo Ito's concrete roof in Japan appears to float (page 166).

Zilch. Nada. Zip. Nil. Architects don't exactly demand this kind of breathlessly flattering description for their latest project, but most of the following pages of our Architectural Technology section all come down to one question: How can a building eliminate its carbon dioxide emissions? The architects, engineers, and consultants we have talked to this month like the idea of zero energy architecture. Or call it zero carbon. Or carbon neutral. Whatever you call it, it has quickly become the single metric for gauging the sustainable seriousness of any design project. So many people in our industry talk of carbon dioxide emissions, greenhouse gases, and global warming, we wanted to focus on putting some definition to the topic in terms of architecture. After all, the U.S. Energy Information Administration estimates 48 percent of U.S. carbon dioxide emissions come from buildings. It's our problem.

If you haven't read the Intergovernmental Panel on Climate Change's recent report, *Climate Change 2007*, by all means, finish reading RECORD and check it out (www.ipcc.ch). It's a downloadable PDF, and it's certainly heavy reading. But its unbiased and conservative estimates of what humans have done to the planet—like rising sea levels, increased heat waves, and more intense tropical cyclones—are the best imperative to adopt sustainable design methodologies since John Denver sang *Rocky Mountain High*. We recognize there is no single way to address this issue, but we want to get this conversation about "achieving nothing" under way. *Russell Fortmeyer*

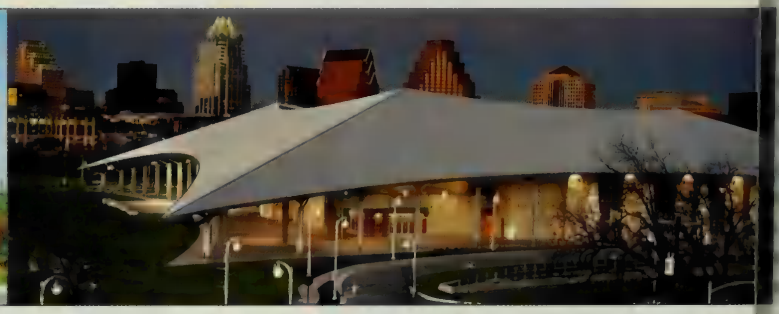


Níall McLaughlin Architects' Hull Architecture Centre runs on colorful solar photovoltaics and wind turbines (page 153).

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The Zero Effect

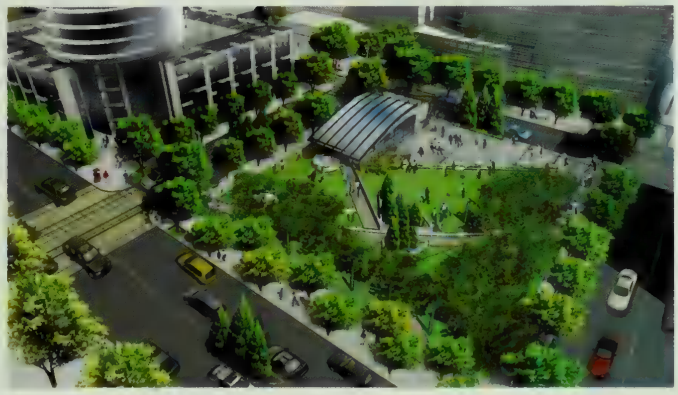
THE FUTURE OF SUSTAINABLE DESIGN INCREASINGLY MEANS ELIMINATING CARBON DIOXIDE EMISSIONS, THE MOST PREVALENT GREENHOUSE GAS. BUT WHAT DOES THAT DO TO ARCHITECTURE?

By Russell Fortmeyer

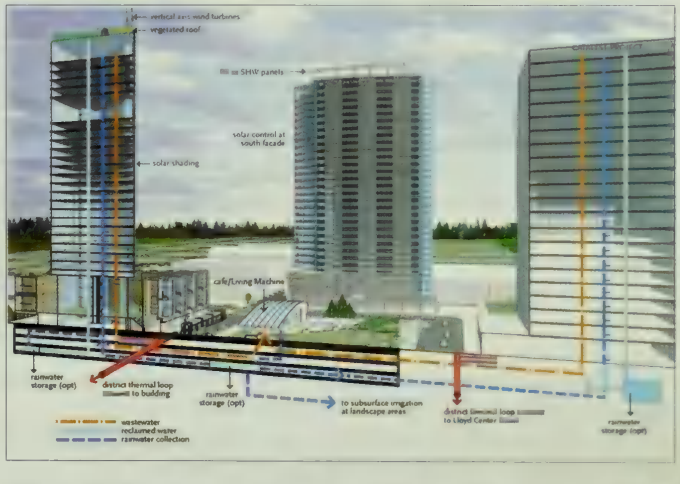
Today you've exhaled, on average, 2.2 pounds of carbon dioxide (CO_2), the greenhouse gas poster child for our current fascination with global warming. Just by breathing, you've entered a cycle of carbon emission and sequestration, an environmental chess game with consequences that are well documented, if little understood. Americans will emit roughly 44,000 pounds of CO_2 per capita this year, an amount over three times the per capita average for the world. And if you're thinking of planting a forest to offset your last trip to Las Vegas, keep in mind the U.S. Department of Agriculture estimates a healthy tree can consume roughly 13 pounds of CO_2 in a year.

Truth be told, human breathing contributes nothing to global warming. We each eat plenty of plants, which act as carbon sinks since they absorb carbon dioxide from the atmosphere, and thus by eating we remove a great deal of carbon dioxide from the environment on a daily basis. If anything, we can breath easier knowing respiration qualifies as a carbon-neutral activity. Such calculated explanations underscore the complications of accounting for carbon emissions across the broad spectrum of our lives—the food we eat, the places we go, the energy we consume, and increasingly, the buildings and cities we create.

Bert Gregory, FAIA, thinks about these kinds of things a lot. As president and C.E.O. of Seattle-based Mithun, an architecture and planning office with a sustainable design specialty, Gregory has literally gone back to nature. In his work on Mithun's *Lloyd Crossing Sustainable Urban Design Plan and Catalyst Project*, a 2004 master plan for a downtrodden section of downtown Portland, Oregon, Gregory and his team began its work by conceptually recreating the native ecosystem of the site's 54 acres to determine exactly how much CO_2 would be absorbed and emitted annually if no human development had ever occurred. The redevelopment plan would then have to match, if not beat, this carbon footprint.



Lloyd Crossing, Portland, Oregon **Mithun prepared a comprehensive urban-planning document for the revitalization of this downtrodden neighborhood into a carbon-neutral development with districtwide systems (below).**



"We couldn't analyze everything because the project resources weren't there, so we focused on high-level things," Gregory says, referring to the plan's key issues of energy and water.

When setting up its predevelopment metrics, Mithun's team found that the yearly baseline of the native Northwest conifer forest landscape would have produced 32 million gallons of groundwater recharge out of 64 million gallons of total precipitation. Calculating that 8 million kilowatt hours (kwh) of solar energy contributed to photosynthesis per year, the team determined that 153 million kwh remained as reflected, absorbed, or re-radiated energy. For the site's carbon balance, the team found that annually the forest consumed 681 tons of CO_2, released 495 tons of oxygen, and fixed 186 tons of carbon as biomass (such as new tree growth). The team now faced the question of how over the four decades of the plan's premise

CONTINUING EDUCATION

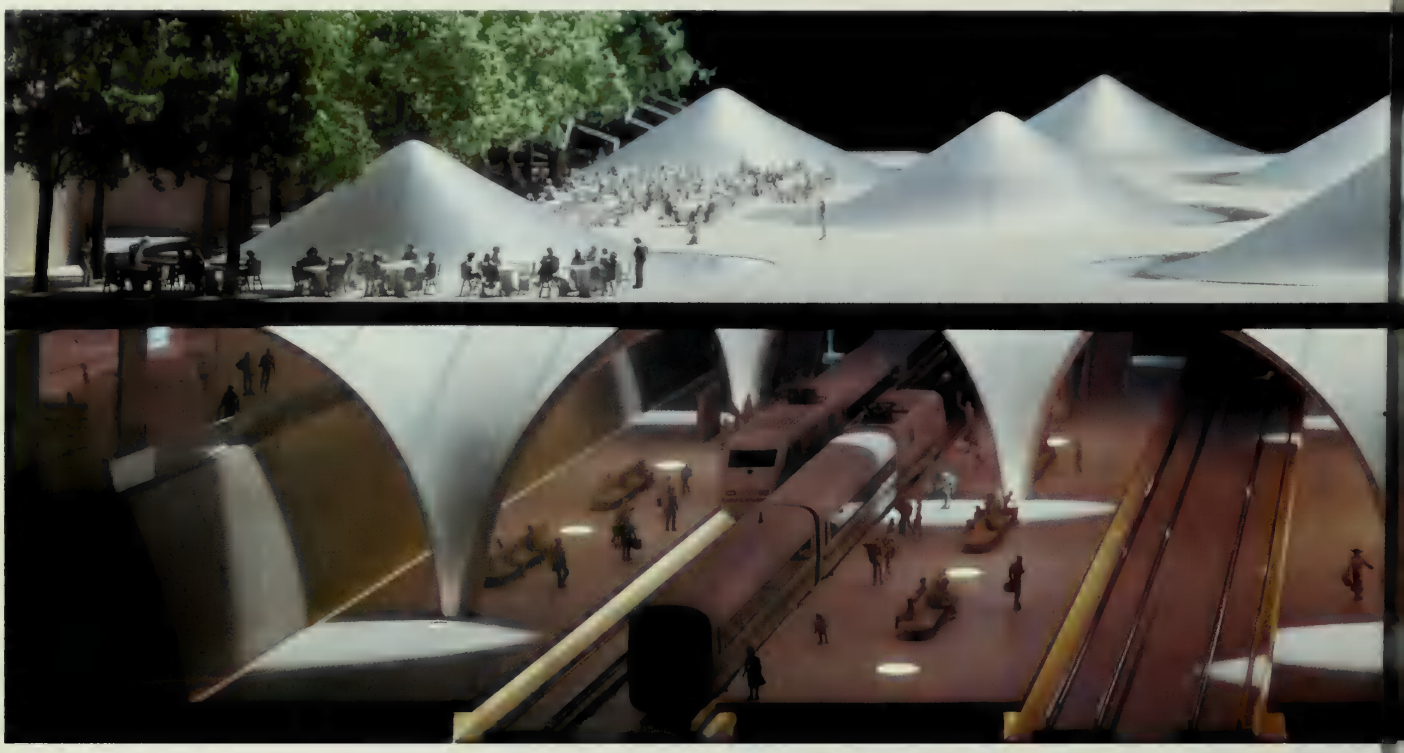
Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/ *AIA Continuing Education article. To receive credit, turn to page 160 and follow the instructions.*

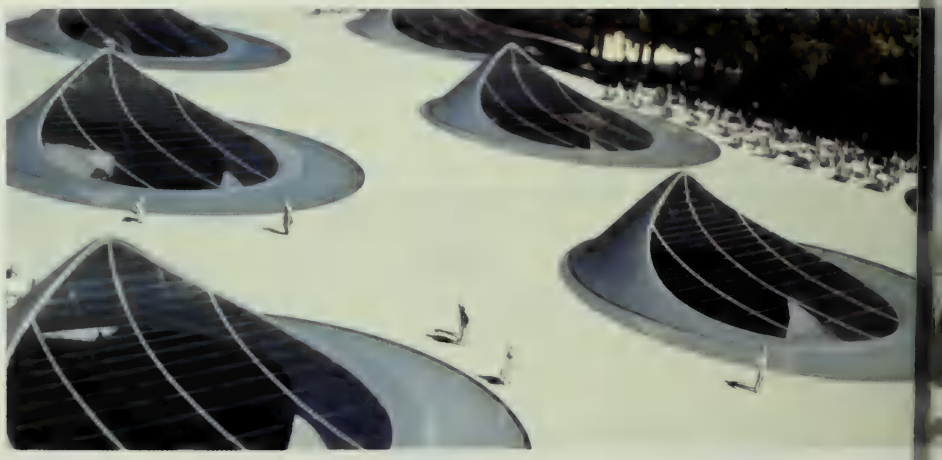
LEARNING OBJECTIVES

After reading this article, you should be able to:

1. *Define what contributes to carbon emissions.*
2. *Explain the differences between the types of net zero concepts.*
3. *Discuss the status of the zero-energy home market.*

For this story and more continuing education, as well as links to sources, white papers, and products, go to **archrecord.construction.com**.





Main Station, Stuttgart, Germany Ingenhoven Architekten, of Dusseldorf, Germany, designed a zero-energy train station for the heart of Stuttgart. The building relies on passive ventilation through the train tunnels. The "light eye" scoops (right) transport daylight into the subterranean train platforms below (above) while also serving the additional duties of providing exhaust air louvers and smoke removal in case of fire. The eyes were digitally modeled to optimize their efficiency in directing light as well as funneling air out of the station. The project, now under construction, will be completed in 2013.

you develop an existing infrastructure into an economically viable district that would be a forest in function, if not appearance.

The plan, which won an AIA Honor Award in 2006 and is available on the firm's Web site (www.mithun.com), represents an attempt to define carbon-neutral design. While the term "zero carbon" gets bandied about, most designers mean "net" zero, where absorption of carbon is equal to or greater than emission, hence the neutrality argument. And when talk turns to carbon, more often than not the discussion concerns energy and its parent, fossil fuels. The Department of Energy (DOE) attributes 98 percent of America's carbon dioxide emissions to the combustion of fossil fuels. It's pretty straightforward to determine a building's energy use, to trace it to its source (probably a coal or natural gas-fired power plant), and to make a rough estimate of how much CO_2 finds its way into the atmosphere every year when you turn on your lights or tweak your thermostat (see the EPA's quick calculator based on kilowatt-hours usage at www.epa.gov/cleanrgy/powerprofiler.htm). Past utility bills or electricity-demand-consumption predictions by electrical engineers, environmental consultants, and utility companies—all of which are likely based on previously known consumption patterns—form the baseline for any discussion of a building's energy reduction or generation. But what do we mean when we set out to make a building "zero energy"?

Zero-sum games

The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) provided one of the more concise statements on zero-energy buildings in "Understanding Zero-Energy Buildings," which appeared in its September 2006 journal (www.ashrae.org). The authors, Paul Torcellini, an engineer at the National Renewable Energy Laboratory (NREL), and Drury Crawley, with the DOE's Office of Building Technologies, subclassify the concept for buildings in four schemes: net zero source energy, net zero site energy, net zero energy cost, and net zero energy emissions.

Net zero source energy compares the building's energy consumption and production to that of the utility source. Since utilities rely on







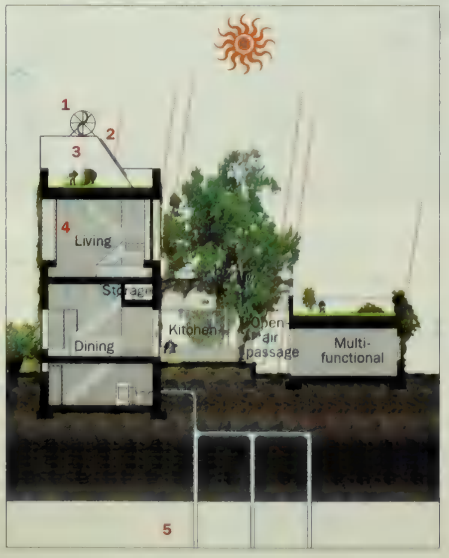
multiple generation plants and transmission systems, this concept generally proves too difficult to quantify and is therefore rarely used in architecture. The net zero site energy concept measures energy consumption within the boundaries of the building's site, ignoring whether the utility source is coal or wind. This applies more generally to what architects try to achieve, since even so-called "off-the-grid" buildings loaded with photovoltaics (PV) and wind turbines still typically connect to utility transmission lines for backup power. Skidmore, Owings & Merrill's design for Pearl River Tower [RECORD, December 2006, page 172], in Guangzhou, China, exemplifies this approach. The third element, net zero energy cost, relies on volatile energy rates—a notoriously difficult metric—to reach a balance between the energy generated on-site and sold to the utility versus the energy supplied by the utility. Finally, the concept of net zero energy emissions only measures the emissions produced by the generation of power to meet the building's total energy needs, which can also prove difficult with a utility company dependent on multiple sources at any given time.

Architects approach this topic in multiple ways, but the ASHRAE article stresses the need to define the project's goal from the beginning to guide the design team in its decisions. The Dusseldorf, Germany–based firm Ingenhoven Architekten established a net zero site energy constraint on its competition-winning scheme for the Stuttgart Main Station, an expansion and upgrade to the city's train station. The design of the building, for completion in 2013, essentially amounts to a roof to cover below-grade train tracks, a public park, and some interior circulation space. Christoph Ingenhoven, the firm's principal, describes the design as a 21st-century response to a 19th-century problem. "It's very difficult to get a zero-energy building," he says, noting that although his own house is nearly zero energy, he still purchases some power from a renewably sourced utility company.

With the program of the train station, Ingenhoven's firm focused on passive strategies—a popular tactic of *energy reduction first*, followed by an investigation of on-site generation to make up the difference. The design includes 28 so-called "light eyes," which serve multiple purposes: daylighting the underground station, relieving exhaust air, and passively removing smoke in the case of an emergency. (Ingenhoven observes that architectural systems serving more than one purpose are a hallmark of sustainable design.) Computational fluid dynamic modeling, as well as conventional wind tunnel tests, proved that a natural ventilation scheme would work since the station's tracks slope nearly 16 feet across its length and trains push air in and out. And since Germany has a relatively temperate climate, expected interior temperatures range from 46 degrees Fahrenheit in the winter to 78 degrees in the summer—not uncomfortable temperatures for passengers seasonably dressed. PVs and renewable power purchase agreements make up the station's only electricity needs for elevators and lighting.



Zero-energy house, Chicago **Zoka Zola, AIA, has designed a site-sensitive single-family home for an inner-city lot that takes advantage of passive heating and cooling strategies. The house, which goes into construction this spring, will eventually support a rooftop PV system.**



1. *Wind turbine*
2. *Solar photovoltaics and solar-heated panels*
3. *Stairwell ventilation shaft for exhaust air*
4. *Radiant cooling concrete slabs for occupied spaces*
5. *Geothermal system tubes down to bedrock*

Public, private, power

It's conventional wisdom that public institutions have been in the forefront of adopting most design and technology supporting sustainable goals. City train stations, built to last decades, must meet higher operational standards and can afford to take a longer view than the classic developer model building that requires a payback in a handful of years. At least, developers have conditioned architects to expect this.

The Los Angeles Community College District (LACCD) has adopted an ambitious plan to transform its nine campuses with a net zero site energy policy. With an existing building base of 5 million square feet and plans to add 3 million more, the LACCD worried it wouldn't have money for increased energy costs for new building. Larry Eisenberg, executive director of LACCD's facilities planning and development department, says the district decided to just eliminate its $9 million annual energy bill. "A comprehensive strategy is key," Eisenberg says.

For the nine campuses to reach zero energy, the LACCD has implemented a three-part plan: improve, reduce, and generate. First, the district intends to convert each of its campuses to a central plant model, an improvement that allows systems to operate more efficiently with fewer maintenance costs. Second, the district has enlisted a third-party contractor to perform an efficiency study of its campuses and to install energy-saving technology, such as occupancy sensors, low-E glass, and better insulation. The district pays for this service out of the money the technology saves on its annual energy bill. These two preliminary strategies ensure the success of the third: the generation of power through a 9-megawatt (mw) photovoltaic installation (or 1 mw per campus).

What's more, the district will subcontract out the system cost and installation to a contractor/supplier (requests for proposals are due back



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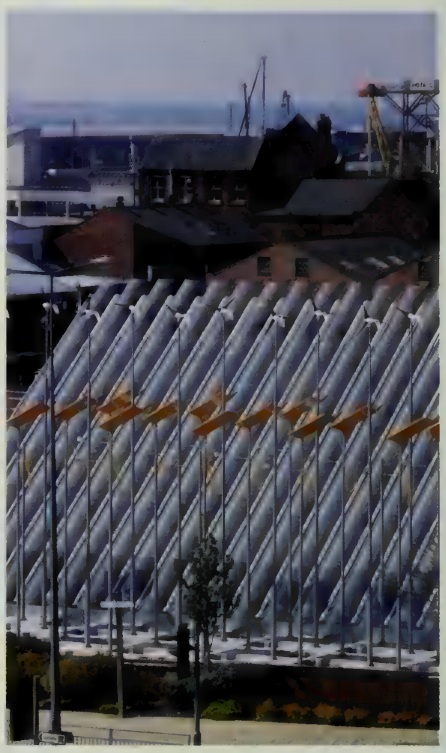


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Zero-carbon beach resort, Nungwi, Zanzibar Richard Hywel Evans Architecture and Design have planned to use photovoltaics and wind turbines to power a beach resort for ecoconscious tourists (left). The resort will offset the carbon emissions associated with guest travel.

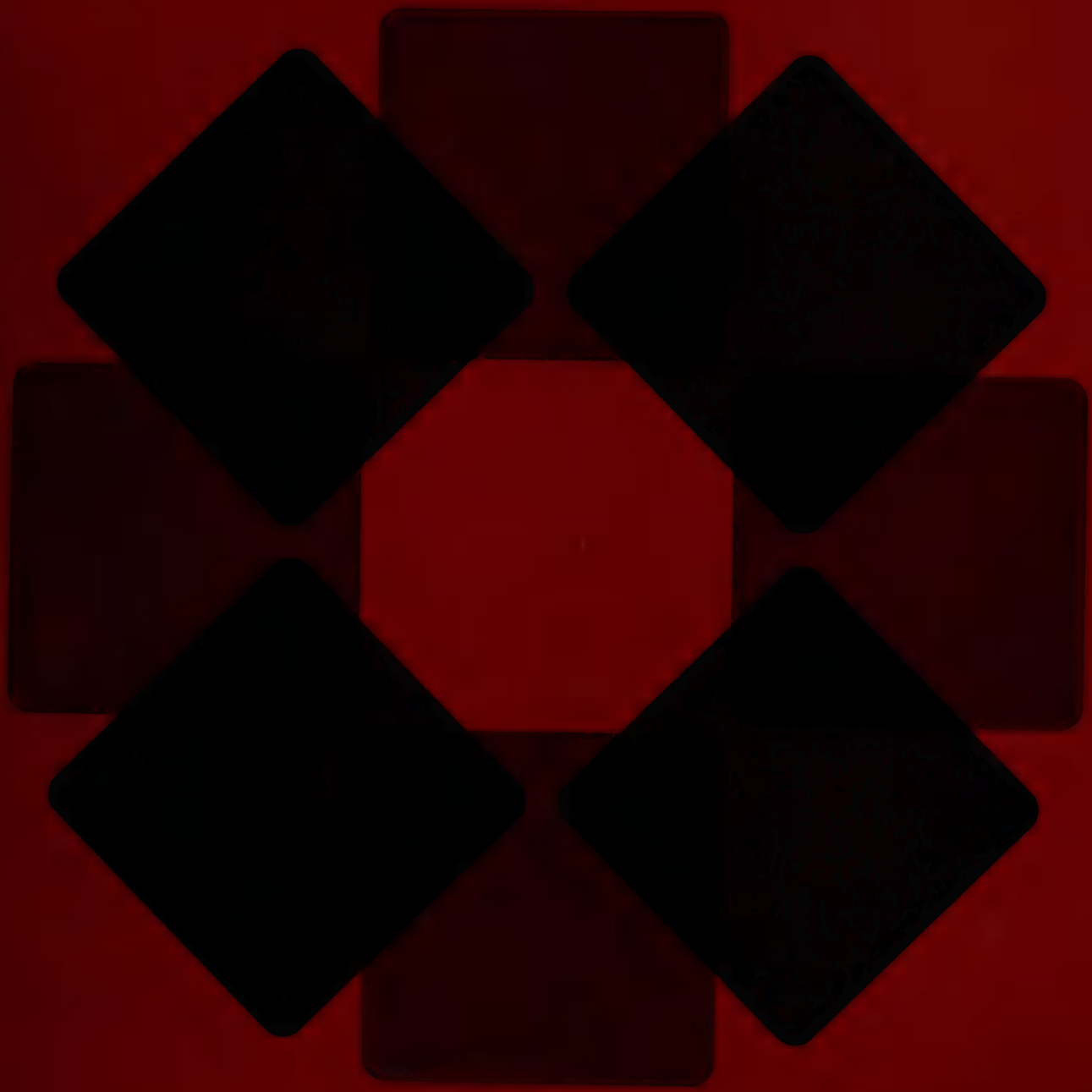
Hull Architecture Centre, Hull, England Niall McLaughlin Architects created a zero-energy temporary structure (top two) to raise design awareness in Hull. Wind turbines and photovoltaics mounted in a plaza supply the building's energy and feed back into the city's grid.

this spring). That third party supplier could then reap federal and state tax credits to eliminate an immediate 20 percent of the PV installation cost. Further, in tax parlance, rapid depreciation of the PV system will pay for another 20 to 25 percent. Green tags—renewable energy credits—can sell on the open market to generate another 5 to 10 percent of the cost. Adding it up, Eisenberg estimates the 9 mw system will cost between 10 to 20 cents on the dollar. With these incentives, Eisenberg projects 1 mw of PVs costs between $1 million and $2 million, which translates to a one to two year payback for a campus with a $1 million annual energy bill. Eventually, the LACCD will buy the system back from the contractor. To skeptics who point to the erratic performance of PVs, which need good sunlight exposure, Eisenberg says the district is exploring a few promising options in energy storage technology, such as hydrogen-powered fuel cells.

Decarbonated living

Large-scale projects garner attention and offset the most CO_2 emissions in a single gesture, but zero-energy single-family homes represent a growing market in nearly every corner of the country. A February 2006 report for the NREL prepared by the National Association of Home Builders (available at http://www.toolbase.org/pdf/casestudies/zehpotentialimpact.pdf) found that the concept of zero-energy homes would be part of the mainstream residential building market by 2012, and by 2050 could result in reducing by 17 percent the electricity demand for the entire U.S. single-family-home sector. Many of the homes referred to in the study, however, appear business-as-usual, incorporating PVs with higher-performance building materials in a conventionally designed tract home on a cookie-cutter subdivision site. As any sustainable-building consultant will tell you, 90 percent of your opportunities for designing a zero-energy home begin with site orientation.

Zoka Zola, AIA, who practices in Chicago, says unless an architect can decide where to place windows and how to take advantage of natural ventilation on a site, reaching a zero-energy goal through passive strategies becomes difficult, if not impossible. "The discussion should be how to make the building as efficient as possible through its general configuration," Zola says. With her design for a zero-energy house in Chicago, she included south-facing windows, specified 25-percent-fly-ash concrete to provide thermal mass, and devised a layout with courtyard gardens to combat heat island



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effects. She also helped the client pare his space needs, avoiding the desire to build out the maximum allowable square footage for the inner-city site. Zola planned infrastructure for the eventual installation of PVs on the roof, but advised her client to wait until PV efficiency reached a higher level to bring the house to full zero-energy status.

May contain hazardous materials

Embedded energy or carbon, which takes into account the energy used to manufacture a construction material or product, constitutes an altogether trickier component of the zero-sum game. Zola did not consider the embodied energy in the house, simply because the material information and tools to quantify such things are sketchy at best. For the Lloyd Crossing plan, Mithun did not consider the occupants or the furnishings of a building and only encouraged the use of construction materials with low embodied energy levels. Mithun's Gregory says any master plan undertaken today should consider occupant and operational factors for individual buildings. "This is an emerging issue," he says, noting that most clients interested today are college campuses and other tightly focused building constituencies.

Ingenhoven began the design process for the Stuttgart station with simple models to test structural solutions. "We wanted to minimize the amount of concrete used, so we needed to find a purely pressure-loaded structure," Ingenhoven says. With Frei Otto and Buro Happold as consultants, as well as a team of German university researchers, Ingenhoven used experience to shape the structure with the models prior to building a digital model that could optimize it. The work paid off in a slim, 14-inch, reinforced-concrete slab across the tracks (compared to Toyo Ito's 7.8-inch slab roof for the Kakamigahara Crematorium, on page 166). Saving concrete cuts down on cement plant production, a notorious source of CO_2 emissions.

Although accounting for embodied energy in our buildings represents a challenge (see the related story at the top of page 170), raising awareness of architecture's effects on carbon emissions has reached a fever pitch. The U.S. Green Building Council announced in November that it would require all buildings going for commercial certification to achieve a 50 percent CO_2 reduction over current levels [RECORD, January 2007, page 127] through stricter enforcement of the energy and optimization points in the LEED rating system. As exhaustively noted in the February 12 issue of *Engineering News-Record*, there is no shortage of CO_2 emissions news—such as the January call from an unlikely industry coalition, including Alcoa, General Electric, and Dupont, for instituting national-emissions limits or the release of the Intergovernmental Panel on Climate Change's *Climate Change 2007* report—helping architects wade through the competing claims, various options, and unwieldy concepts remains a daunting challenge. Mithun's Gregory stresses the combined wisdom of multidisciplinary teams as the short-term solution. On the Lloyd Crossing project, the Mithun team included architects, energy engineers, civil engineers, economists, landscape architects, and even a branding company to help the team communicate its ideas to the community. While meaningful change will take time, Gregory notes, "There aren't enough carbon offsets for the entire world." ■

AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- **Read the article "The Zero Effect" using the learning objectives provided.**
- **Complete the questions below, then fill in your answers (page 215).**
- **Fill out and submit the AIA/CES education reporting form (page 215) or download the form at archrecord.construction.com to receive one AIA learning unit.**

QUESTIONS

1. Which of these do not emit carbons?
- **a.** creating concrete
- **b.** driving a gasoline engine car
- **c.** human breathing
- **d.** healthy trees

2. Net zero energy emissions measures which?
- **a.** emissions produced from generation of the energy a building needs to buy
- **b.** emissions produced by the generation of a building's total energy needs
- **c.** difference between the energy sold to the utility versus the energy supplied by the utility
- **d.** comparison of the building's consumption and production to that of the utility source

3. What percentage of America's carbon dioxide emissions are due to the combustion of fossil fuels?
- **a.** 32 percent
- **b.** 68 percent
- **c.** 82 percent
- **d.** 98 percent

4. Most often architects try to achieve which concept since buildings still typically connect to utility transmission lines for backup power?
- **a.** net zero source energy
- **b.** net zero site energy
- **c.** net zero energy cost
- **d.** net zero energy emissions

5. An example of the tactic "reduction first" is which?
- **a.** making the square footage of the building as small as possible
- **b.** taking advantage of all the possible tax credits first
- **c.** find ways to reduce energy consumption first
- **d.** generate energy on-site, reducing the reliance on utilities

6. Renewable energy credits are also known as which?
- **a.** green tags
- **b.** photovoltaics
- **c.** passive strategies
- **d.** sustainable design

7. Why have public institutions been the early adopters of most technology supporting sustainable goals?
- **a.** they must meet higher operational standards
- **b.** they can afford to take a longer time to pay off the building costs
- **c.** private developers want a quick payback time frame
- **d.** all of the above

8. The Los Angeles Community College District intends to convert each of its campuses into a central plant model for which reason?
- **a.** it will more easily support a photovoltaic system
- **b.** it will cost less to maintain
- **c.** it will operate more efficiently
- **d.** b and c only

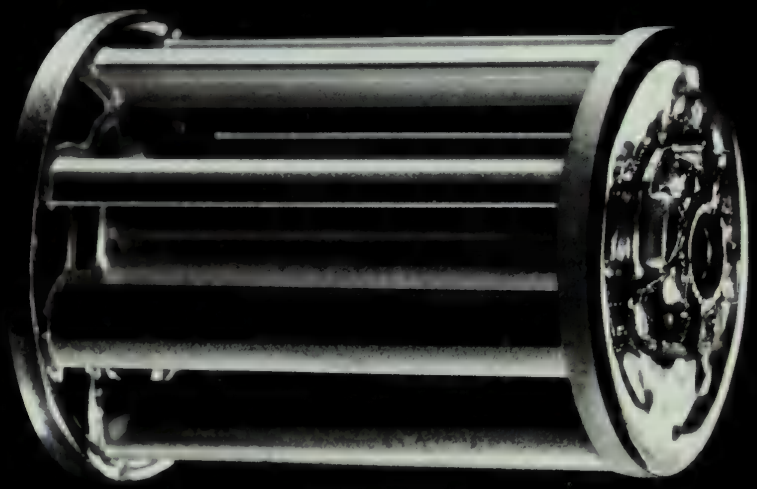
9. By 2050, zero-energy homes could result in reducing the electricity demand of the U.S. single-family-home sector by how much?
- **a.** 2 percent
- **b.** 10 percent
- **c.** 17 percent
- **d.** 33 percent

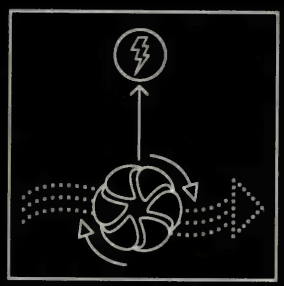
10. Zoka Zola included all except which as passive strategies to reach a zero-energy goal?
- **a.** east- and west-facing windows
- **b.** courtyard gardens
- **c.** 25-percent-fly-ash concrete
- **d.** south-facing windows

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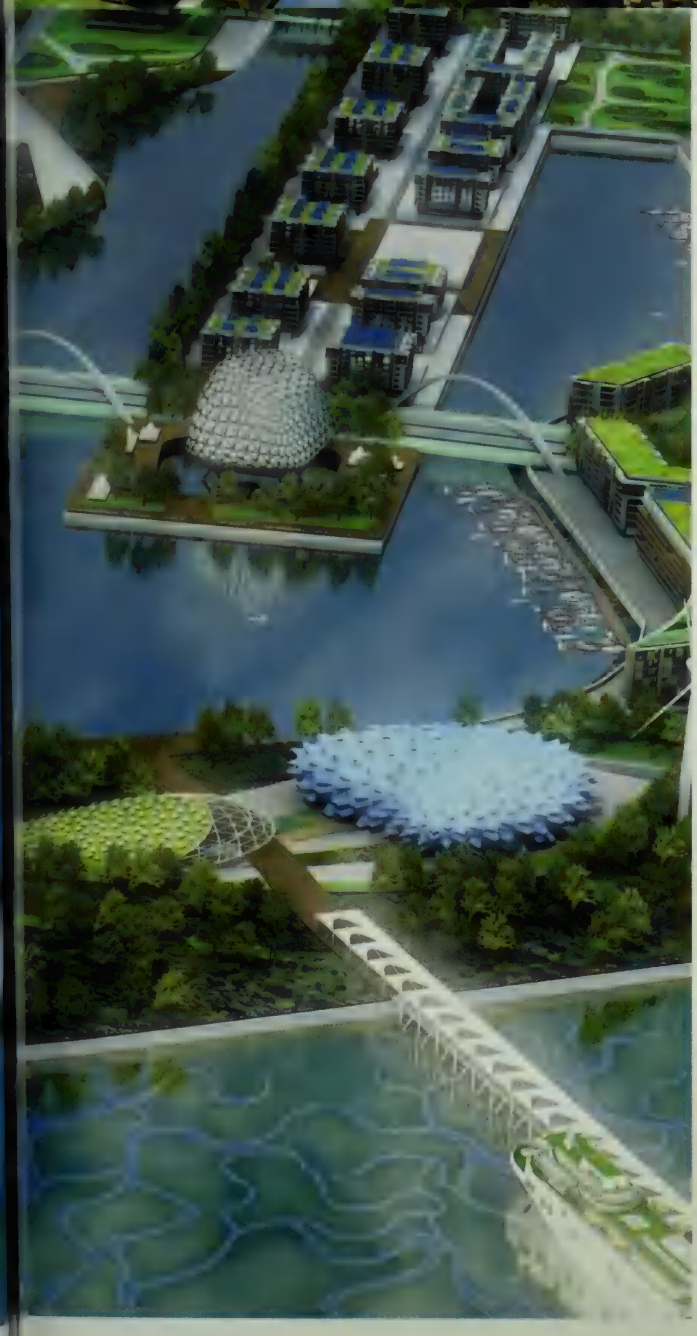
Zero-Carbon Cities

WITH CITIES WORLDWIDE FACING DAUNTING ENVIRONMENTAL CHALLENGES ON A GLOBAL SCALE, A MULTIDISCIPLINARY TEAM AT ARUP SEEKS TO CREATE A MODEL FOR HOW CITIES CAN DEVELOP CARBON NEUTRALLY





Dongtan is expected to eventually be home to more than 500,000 residents, which is a drop in the bucket for a country of 1.3 billion people. But the ambitious carbon-neutral experiment of Dongtan is meant to be a model for development worldwide.



By Sara Hart

Once upon a time, when the world's population was a fraction of the 6.5 billion it is today, environmental issues were thought of as local problems. Writers, politicians, scientists, and activists have recorded the polluted, disease-producing conditions of urban centers for centuries. Benjamin Franklin petitioned the Pennsylvania Assembly in 1739 to stop dumping waste and remove tanneries from Philadelphia's commercial district, citing foul odors, lower property values, and disease. And yet, even the proto-environmentalist Franklin could not predict that centuries of local industrial recklessness would one day endanger the entire planet.

In 2007, environmental issues are literally global in that the carbon emissions of every industrialized country have accumulated to create the present damaging climate changes. From Al Gore's 2006 documentary *An Inconvenient Truth* to the release last month of "Climate Change 2007," a six-year study about global warming from the Intergovernmental Panel on Climate Change, there seems to be little doubt that the by-products of industrialization—greenhouse gases, particularly carbon dioxide (CO_2)—are responsible.

Even before the latest reports, a new model for confronting global warming has gained traction. The new model, variously referred to as *zero-carbon*, *carbon-neutral*, or *fossil-free* development, is a revolutionary attempt to stop and, where possible, reverse the damage. Whereas there are currently no such zero-carbon cities in the industrialized world, an experiment is unfolding that attempts to create a carbon-neutral city from scratch and provide a prototype for the future of all cities in one of the world's most environmentally distressed countries, China.

China syndrome

Adjacent to booming Shanghai, plans are coming together for the prototypical city of Dongtan, which designers argue would be the world's first truly sustainable new urban development. London-based Arup and the Shanghai Industrial Investment Corporation (SIIC), the city's investment branch, have partnered to create a master plan for Dongtan, an area three quarters the size of Manhattan. The brief calls for integrated sustainable urban planning and design to create a city as close to carbon-neutral as possible within economic constraints. Located in sensitive wetlands on Chongming Island at the mouth of the Yangtze River just north of Shanghai, Dongtan's first phase, a marina village of 20,000 inhabitants, will be unveiled at the 2010 World Expo in Shanghai. By 2020, nearly 80,000 people are expected to inhabit the city's environmentally sustainable neighborhoods.

Sara Hart, a former editor at RECORD, *is a New York–based freelance writer.*



Wind turbines are integrated into everyday community spaces in Dongtan.

As a strategic partner, Arup is responsible for a range of services, including urban design, sustainable energy management, waste management, renewable energy process implementation, architecture, infrastructure, and even the planning of communities and social structures. Peter Head, director of Arup's sustainable urban design, leads the project for the firm from its London's office (during design, Arup is offsetting the emissions of its team's travel to and from the site in cooperation with emissions brokerage firm CO2e). "Renewable energy will be used to reduce particulate CO_2 emissions. Transport vehicles will run on batteries or hydrogen-fuel cells and not use any diesel or petrol, creating a relatively quiet city," he explains. Other priorities include recycling organic waste to reduce landfills and generate clean energy.

Head insists development won't affect the wetlands. "First of all, water usually discharged into the river will be collected, treated, and recycled within the city boundaries," he says. "There will be a 2-mile buffer zone of eco-farm between city development and the wetlands." While farming is water intensive, relatively small amounts of water reach the plants themselves. Head says Dongtan "will capture and recycle water in the city and use recycled water to grow green vegetables hydroponically. This makes the whole water cycle much more efficient."

There are, of course, questions about what kind of sustainable industries will provide jobs for Dongtan residents. City officials and their consultants anticipate jobs in education, including an Institute for Sustainable Cities. They expect to attract companies pursuing new technologies, food research and production, and health care. Of course, ecotourism will become a significant industry. The plans for the development have already garnered their fair share of press in the design world [RECORD, March 2006, page 46].

Dongtan's ecological footprint

The Stockholm Environment Institute (SEI) describes the global environmental imbalance succinctly: "Sustainability requires living within the regenerative capacity of the planet. Currently, human demand on the planet is exceeding the planet's regenerative capacity by about 20 percent. This is called 'overshoot.' "

Arup is developing an ideal ecological footprint for Dongtan to guide the master plan and prevent overshoot. The new city's ecological footprint will be determined by a modeling program called the Resources and Energy Analysis Program (REAP), developed by SEI and the Center for Urban and Regional Ecology at the University of Manchester. Unlike the traditional focus on air and water pollution, REAP concentrates on measuring the amount of resources consumed by the number of individuals occupying a defined area.

The best ecological footprint, of course, balances (nature's) supply and (human) demand, which is the goal at Dongtan. Head and his team are using REAP to determine the effectiveness of their planning decisions in achieving sustainability, as well as Arup's own sustainable design assessment tool, the Sustainable Project Appraisal Routine (SPeAR). The footprint will reveal how much productive land and sea is needed to provide the energy, food, and materials for daily consumption, and how much land is required to absorb human-generated waste. The program also calculates the emissions generated from the oil, coal, and gas burned, and determines how much land, air, and water is required to disperse these emissions.

Ecological footprinting is not without critics. Some experts argue that by applying generalizations and averages to per capita analysis, while not accounting for multiple usages of the same land, for instance, oversimplifies the conclusions. SEI claims that REAP is "the only software tool that can convert household [and commercial] expenditure at the national level into its associated environmental impact," rendering its forecasts more accurate at the product level with the inclusion of "bottom-up" data.

The U.K. has a short, but intense, history of ecological footprinting. For years prior to Dongtan, British architect Bill Dunster and Arup had pursued the viability of harnessing renewable resources, achieving closed-loop material use, and creating site-resource autonomy. In 1999, the Peabody Trust, one of London's largest affordable housing providers, selected Arup, Bill Dunster Architects (since renamed BDa ZEDfactory), and the BioRegional Development Group to test their ideas creating the Beddington Zero (fossil) Energy Development (BedZED). The goal of the 83-home, mixed-income housing development in South London was to prove that carbon-neutral projects were cost-effective, practical, and therefore ready for the mainstream marketplace.

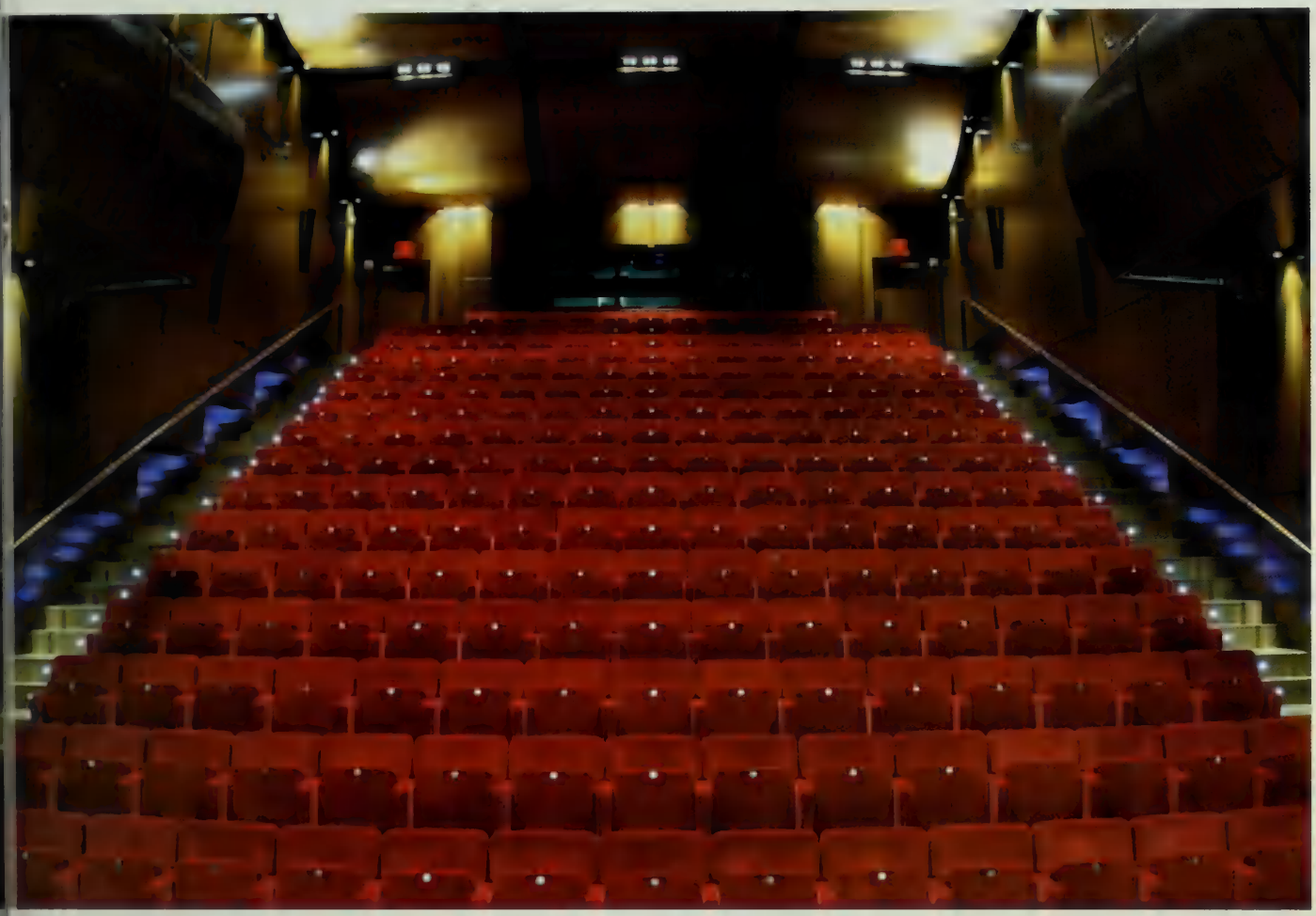
For the Dongtan team, BedZED's most important lesson was its holistic design approach, which eliminated obsolete systems from the beginning, rather than tacking on sustainability features in an effort to increase performance. Arup is applying total design integration to the project through a series of design specifications for architects. While construction on infrastructure is slated to begin this year, no architects have been engaged for the building program.

Think globally, act locally

Innovation should not be conceded entirely to the U.K. or Europe. Progress can be seen domestically at the local and state levels, as federal guidelines are now being fortified with legislation. With much fanfare, Governor Arnold Schwarzenegger of California recently established a groundbreaking Low Carbon Fuel Standard (LCFS) for transportation fuels sold in the state. Elsewhere, cities are concentrating on buildings and land use, confronting the fact that U.S. buildings annually consume 43 percent of the nation's energy and generate 35 percent of its CO_2 emissions.

Nine years ago, Austin, Texas, recognized the impact that residential construction was having on the local environment and established a Green Building Program to provide financial incentives—not just voluntary guidelines—for all residential, commercial, and multifamily projects. Austin Energy, the city's community-owned utility, has developed renewable energy sources, including wind turbines, landfill methane gas recovery projects, and solar energy sites. Seattle's public electricity utility has adopted a policy of zero-net greenhouse gas emissions by selling its stake in a coal-fired steam plant and mitigating emissions from its remaining fossil-fuel plant. These aren't new strategies, but they are now being widely embraced by a design community that is more engaged in the bigger regional picture of each individual architectural project.

A zero-carbon nation will undoubtedly take more generations to achieve, but the political will to do so is gaining momentum and having Dongtan as a model will certainly help matters. This growing interest reveals a commitment to long-term goals, which has effectively been missing since Benjamin Franklin argued that the public has a right to live in environmentally healthy communities. ■









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Technicalities

Toyo Ito builds a concrete cloud



By Russell Fortmeyer

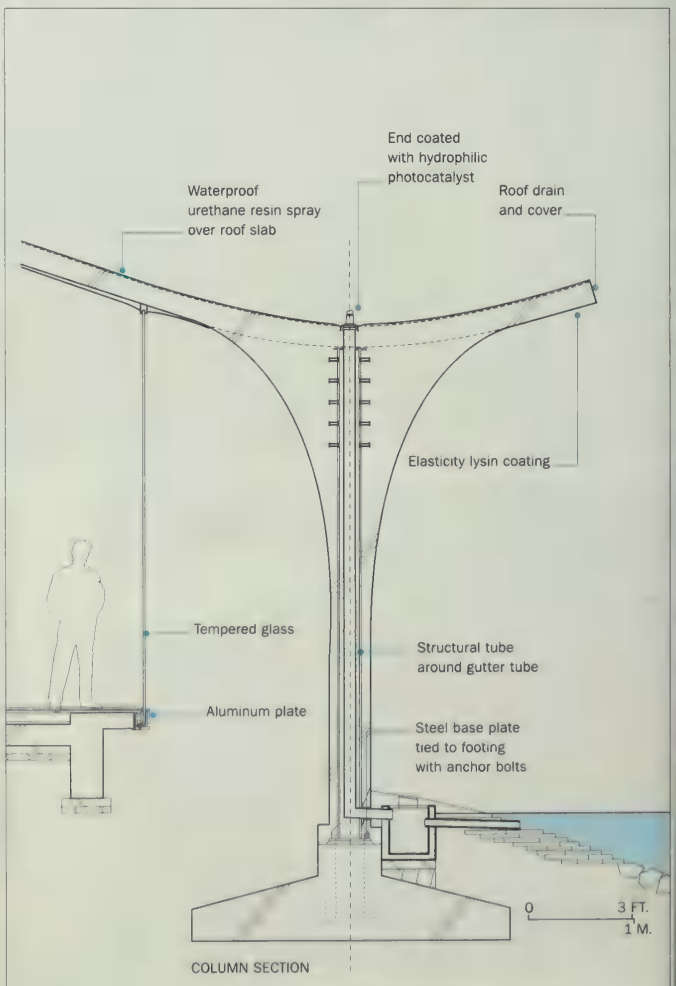
Nature creates clouds by condensing water onto dust—an explanation as unsatisfactorily simplified as saying Toyo Ito designed a new crematorium in Kakamigahara, Japan, with some algorithms and a little poetic inspiration.

Working with Sasaki Structural Consultants, Tokyo-based Toyo Ito and Associates used a process it terms "evolution" to digitally optimize the structural design of the building's billowing, reinforced-concrete roof, a seeming landscape of convexities and concavities that integrates a roof-drainage system at each of the 12 cone columns. Ito has explored roof topography before, in a lattice-embossed steel roof for the 1996 Nagaoka Lyric Hall.

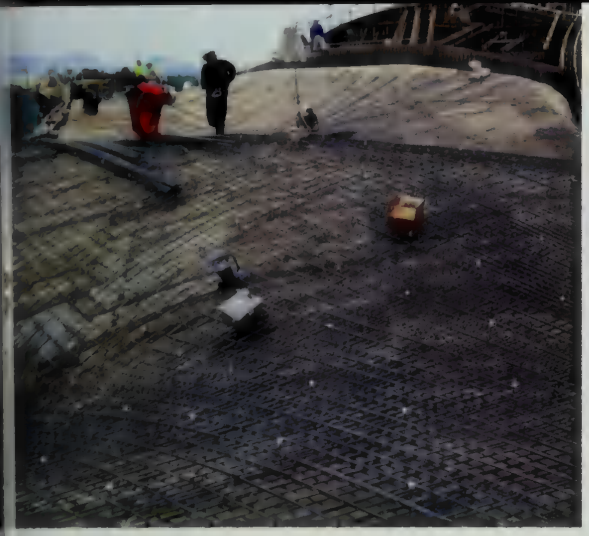
Ito likens the crematorium's roof to a cloud—a characterization that seems to defy the material properties of reinforced concrete—but one need look no further than the pioneering work of Swiss engineer Robert Maillart for an earlier example, albeit less sensuously realized. Sigfried Giedeon, in the 1941 edition of his *Space, Time and Architecture*, credited Maillart with achieving the "building conceived as a unit," or what we might call the appearance of a *single pour*, with a particular emphasis on the Modern preoccupation with lightness. Maillart's Cement Hall for the 1939 Swiss National Exhibition in Zurich balanced the roof's practical concerns with a concrete-shell thickness of a mere 2.4 inches. Ito's roof does it in 7.8 inches, correcting for Japan's seismic conditions.

Contractors poured the crematorium's roof in five steps and, with grinding machines, smoothed the joint lines to heighten the form's continuity. Workers maintained the roof's tolerance of 0.4 inches with a laser level finder and readings at 3,700 precise points. A hard cement mix kept the concrete from sliding down the sloping formwork. Even after smoothing, some rougher parts were covered with mortar and ground again. Finally, contractors sprayed a flexible, waterproof urethane layer of 0.2 inches across the entire surface. So while the building may look like a cloud, water does not fall from its underside. ■

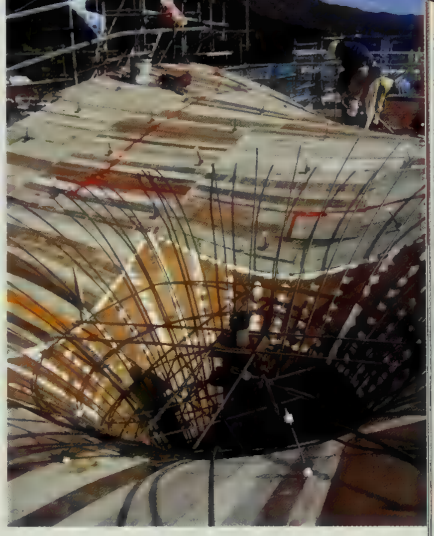




From a distance, the crematorium appears tethered to the ground (left), while a view from a nearby hill suggests a landscape (top). Intense grinding following each pour helped achieve a seamless look.





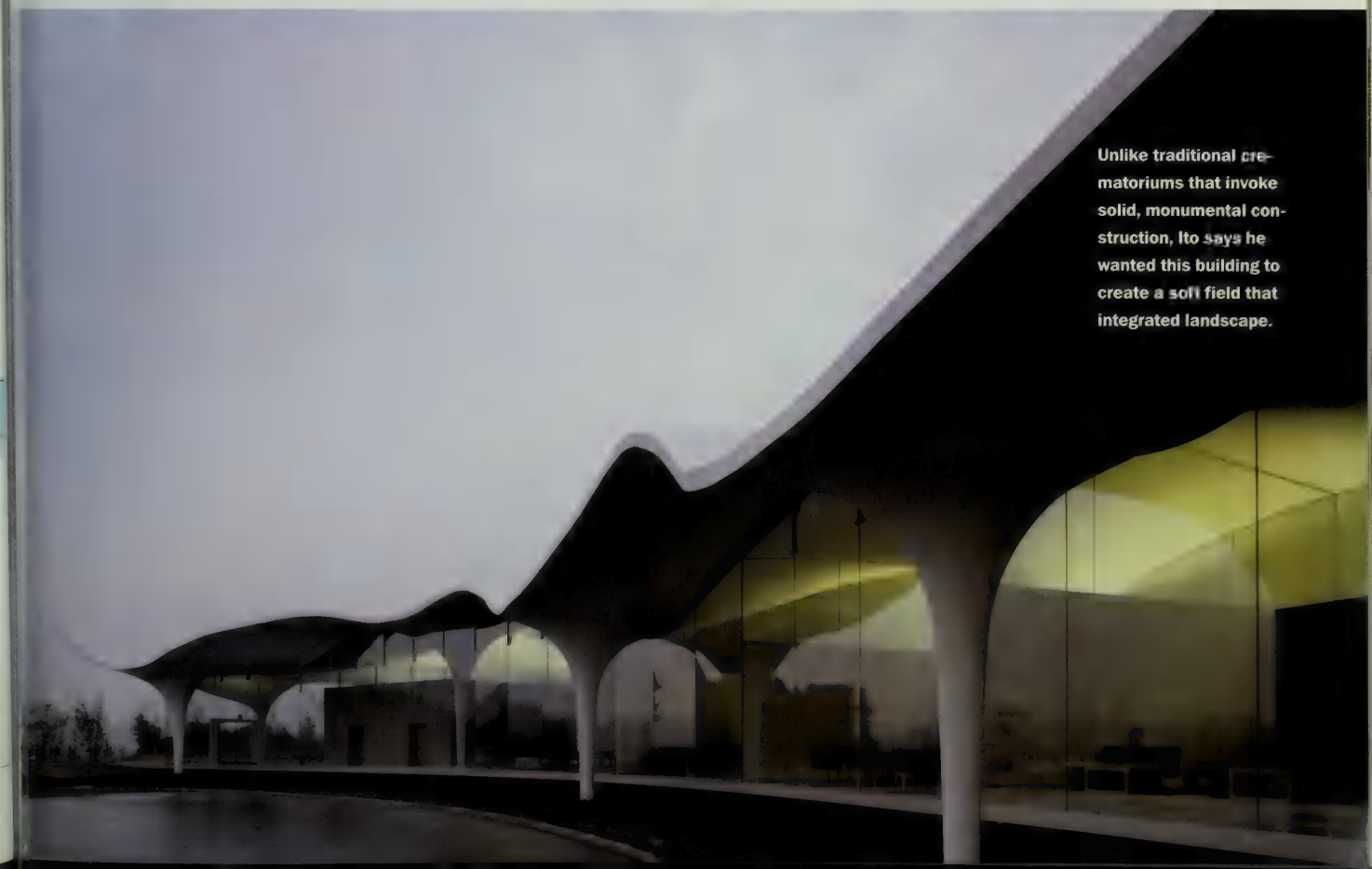


Contractors first constructed a wooden formwork (above), laid down a mesh of steel rebar (middle), and then poured the concrete in five batches. The top of a cone column (above far right), shows the integrated roof-drainage system.



EAST-WEST SECTION

1. *Vestibule*
2. *Corridor*
3. *"Valedictory" room*
4. *Furnace room*
5. *Control room*



Unlike traditional crematoriums that invoke solid, monumental construction, Ito says he wanted this building to create a soft field that integrated landscape.



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Tech News & Reviews

Following carbon footprints leads architects and consultants to their own doorsteps

Last month's declaration by a United Nations panel that global warming is "unequivocal," and that fossil fuel use is "very likely" to blame, should intensify discussion of the already hot topic. Of course, many "green" architects and their consultants were already focused on the issue, not only in relationship to the buildings they design, but also in regard to their own business practices.

Several firms have developed, or are developing, sustainable operations plans for their offices that include minimization of greenhouse gases, primarily carbon dioxide (CO_2), as part of their larger missions. "It fits with our mindset and philosophy," says Rebecca Tannebring, New York City office manager for environmental consultant Atelier Ten.

To shrink the CO_2 footprint of their own work spaces, architects and their consultants rely on many of the same strategies they employ in the buildings they design, including daylighting, energy efficient office equipment, and lighting controls such as occupancy sensors. Many firms reduce transportation-related sources of greenhouse gases by eliminating unnecessary business travel and by a variety of programs aimed at making commuting by mass transit a more attractive option.

After reigning in the operational activities associated with greenhouse gas emissions, to come closer to the brass ring of carbon neutrality firms typically participate in "offsets." This process entails investing, through a third-party provider, in projects that reduce greenhouse gas emissions, such as tree planting, or construction of wind and solar energy facilities.

In order to determine how many offsets to buy, businesses typically conduct an inventory of emissions. And, as part of this accounting task, they must decide which greenhouse gas generating activities to include and which to exclude. A CO_2 inventory could conceivably take into account the carbon embedded in office supplies, such as paper and toner, and that generated by outsourced activities, such as printing and shipping. But few, if any firms, are conducting inventories so fine-grained.

Although the boundaries of greenhouse gas inventories vary from firm to firm, among those interviewed for this article, it was common to include electricity use, fuel associated with heating and cooling, and business-related travel. Some go even further. Cook+Fox includes employees' home electricity consumption estimated through a sampling of staff utility bills, according to Alice Hartley, a member of the firm's "green team." The firm purchases renewable energy credits for this electricity use and for that used by its New York City office.

However, including employees' home power use within the boundaries of a greenhouse gas inventory is highly unusual. Most firms track only that electricity consumed by the operations of their office spaces. This bookkeeping task, especially for large, multilocation practices with a variety of tenancy situations, can be demanding. Perkins+Will, for example, has been following electricity consumption at its 20 North American locations for 18 months. The firm owns some of these spaces and rents others. Some have dedicated meters and others do not. The diversity of arrangements "adds a layer of complexity," says Chicago-based Gavin Smith, AIA, a project architect with the firm.

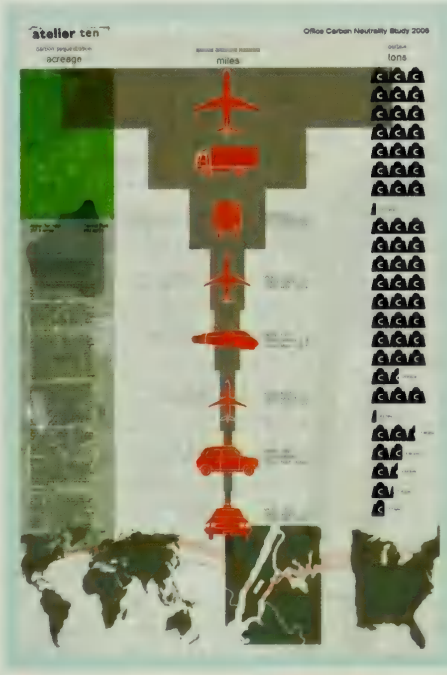
For keeping track of air travel, which can account for a huge share of a firm's emissions, sources have different approaches. Some depend on employees to report air mileage and tie the process directly to the expense-reporting system. Others, like Seattle-based Mithun, depend on one agency for both travel arrangements and for managing the related record keeping, according to Bert Gregory, FAIA, president and C.E.O.

The protocols for determining the amount of CO_2 associated with power use, air travel, and other activities, are still not mature. "It's an emerging area," says Smith. Perkins+Will, along with many other firms, depends on a greenhouse gas accounting standard developed by the World Business Council for Sustainable Development and the World Resources Institute (www.ghgprotocol.org).

Sources point out that inventories are not static and that regular updates and adjustments are important, especially for quickly growing firms. "It's a continuous process," says Atelier Ten's Tannebring. The firm recently completed a calculation of its CO_2 emissions for the 12-month period ending in April 2006, and is now investigating offset options.

None of the firms interviewed would discuss how much the reduction, record keeping, and offset process adds to overhead. However, some of the expenses can be treated as reimbursable, as any project-related expense would. Cook+Fox, for example, uses a car service with a gas-electric hybrid fleet when travel by mass transit doesn't make sense. The service, which comes at a slight premium over taxis, is identified as a reimbursable in contracts, helping develop awareness among clients about greenhouse gases and global warming, says Hartley.

Joann Gonchar, AIA



For its New York City operations, Atelier Ten, an environmental design firm, recently completed an inventory of office activities associated with carbon emissions that spanned a 12-month period.

Tech News & Reviews

On the greenhouse gas trail, one engineer aims beyond "carbon neutral"

Carbon dioxide (CO_2) emissions trading, a market-based strategy for mitigating climate change, has been steadily growing over the past few years, and furnishing and building-product companies are among the industries adopting the practice.

U.S. furniture systems manufacturer Hayworth announced late last year that its Zody task chair had earned "Planet Positive" certification. The designation is the brainchild of Guy Battle, the London-based environmental and building engineer. He has been working with Hayworth since before the chair's release in 2005 to examine procurement and manufacturing processes with the aim of reducing and managing the CO_2 emissions associated with Zody and the company's other products.

To deliver these services, Battle has created dcarbon8, a consultancy separate from Battle McCarthy, his engineering and landscape practice. "As a designer, there are only so many buildings I can touch," says Battle. "This has a wider impact."

After reducing CO_2 emissions as much as is practical, dcarbon8 clients purchase vouchers for 110 percent of the remaining embedded CO_2. These certificates are passed on to the product's buyer so that the end user can invest in a carbon offset project of their own choosing.

The production of the Zody is responsible for approximately 200 pounds of CO_2, or about 30 to 40 percent fewer emissions than that of a similar task chair, according to Battle. Therefore, Hayworth provides vouchers worth 220 pounds for each chair it produces. Because the value of the offsets is greater than that of the emissions associated with the product, the net result is carbon negative rather than carbon neutral, explains Battle: "There is a net positive impact on the planet."



Hayworth's Zody chair, on the market since 2005, has been designated "Planet Positive." It had already earned gold Cradle to Cradle certification.

The Zody had already earned certification under the Cradle to Cradle protocol created by William McDonough, FAIA, and chemist Michael Braungart (see page 82). That program examines factors like the potential for components to decompose or be reused and the quantity of energy and water consumed in manufacturing. "The two initiatives are complementary," says Franco Bianchi, Hayworth president and C.E.O.

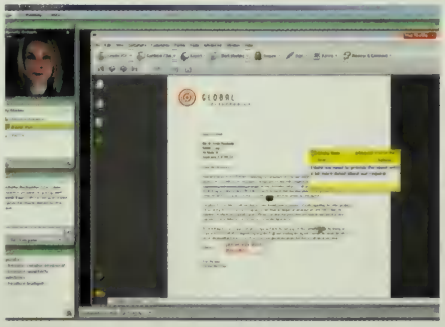
In addition to Hayworth, dcarbon8 clients include manufacturers of products such as cladding and flooring and industrial real estate developer ProLogis. The company is building a supermarket distribution center in the Midlands region of the U.K. that will incorporate technologies such as cogeneration, photovoltaics, and solar heating. It is expected to be the world's first Planet Positive building when it opens in August. *J.G.*

Adobe launches a new Web-based conferencing platform and a fine-tuned version of Acrobat

The PDF file format continues its dominance of the portable file market with the release of an updated version of Adobe's Acrobat, now in version 8, and the launch of a reconstituted edition of the Internet conferencing software Breeze, now called Adobe Acrobat Connect.

Acrobat 8 Professional fine-tunes many of the software's standard features, adding the ability to create a single PDF out of multiple files, as well as streamlining the software's look. Additionally, you can add comments to files in a shared review setup, when files are located on shared servers, and garner instant feedback from collaborators who may only be using Adobe's Reader 8.

While conferencing software and Web sites are nothing new, Connect's reliance on a backbone of Adobe's Flash Player—a free, downloadable program Adobe recently acquired—means only one party actually needs the Connect software to host a meeting. Patrick Aragon, an Adobe representative, says the acquisition of Flash Player was key since the program already exists on most computer desktops.





Adobe Acrobat Connect's user interface (left) is intuitive and straightforward.

Connect operates over the Web, so videoconferencing is instantaneous; the professional version even delivers Voice over Internet Protocol capability. You simply type in a conference URL and join the meeting. Adobe offers two different cost structures, depending on whether Adobe or your company hosts the connection. If you host, the fee depends on the number of users and overall usage. If Adobe hosts, it's a yearly fee of $395 with $39 monthly charges per virtual meeting URL. Having Adobe host the site frees your company's bandwidth, which makes this particularly helpful for smaller offices.

Like Acrobat, this version of Connect isn't specifically tailored to the a/e community, but both programs include a number of bells and whistles for designers. For example, you can take a DWG file, and even without AutoDesk's AutoCAD on your computer, you can drop the file into Acrobat 8 and create a PDF that would be viewable in Connect. That's handy for project managers with laptops on the road. Still, Connect isn't the program to use if you're interested in revising drawing files in a live process, but since making a PDF is now push-button fast in everything from CAD programs to Microsoft Word documents, hashing out the details of an expansion joint with your contractor would be well within your reach. *Russell Fortmeyer*

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Tech News & Reviews

Three very different books about sustainable design stress the need for a collaborative approach and an integrated process

Sustainable Commercial Interiors, *by Penny Bonda and Katie Sosnowchik. Hoboken, New Jersey: John Wiley & Sons, 2006, 305 pages, $70.*

ASHRAE Green Guide: The Design, Construction, and Operation of Sustainable Buildings, *Atlanta: ASHRAE/Butterworth-Heinmann 2006, 394 pages, $79.95.*

Design on the Edge: The Making of a High-Performance Building, *by David W. Orr. Cambridge: MIT Press, 2006, 272 pages, $27.95.*

Collaboration among the various members of the project team is critical to the success of any building. But the design and construction of a high-performance building, in particular, demand close coordination and clear communication among the owner, the design consultants, and the builders because so many elements, including the building's orientation and configuration, the mechanical systems, and the materials, are dependent on their integration with each other. Three recent publications about green design—two reference manuals and a book that chronicles the planning and construction of the first substantially sustainable building on a U.S. college campus—acknowledge the importance of this integrated approach.

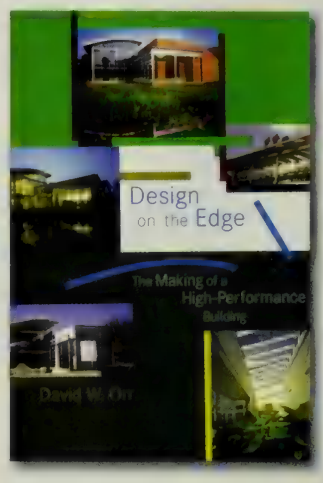
As its name suggests, *Sustainable Commercial Interiors*, by Penny Bionda and Katie Sosnowchik, is targeted at a particular professional audience engaged in a very specific type of project. It is full of practical information about carpet recycling initiatives, product certification programs, and the toxins found in many standard building materials. It includes sections contributed by well-regarded members of the design community on subjects such as daylighting, life cycle assessment, and specification writing. In addition, the book also examines topics that are typically outside most interior designers' scope of responsibilities. For example, one chapter is devoted to site, water, and energy issues, in order to provide interior designers with "the knowledge they need to work effectively with the architect and engineers on their project teams," according to the authors.

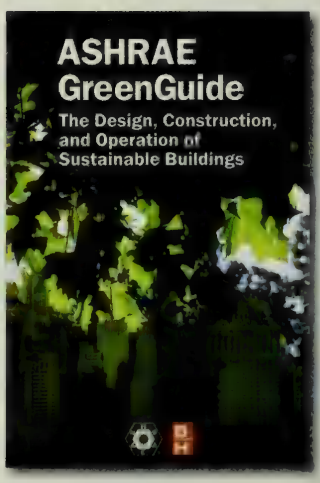


Like Bonda and Sosnowchik's book, the updated version of the *Green Guide*, published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), was conceived with a particular audience in mind—in this case, mechanical engineers. However, the book contains information that would also be helpful to other members of the design and construction team.

A set of so-called "green tips" pinpoint the safety, occupant comfort, and energy issues unique to specific building types. Another set of tips explains key technologies, such as ground source heat pumps, thermal energy storage, and gray-water systems, in an accessible way, useful to architects, owners, and building managers. It explains in what circumstances the use of a certain strategy would be most appropriate, and its potential benefits and drawbacks.

One important chapter is devoted to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system, discussing point-by-point those credits that fall directly or indirectly under the purview of the mechanical engineer. It makes a convincing case for the HVAC consultant's central role in the making of LEED-rated and sustainable buildings, and for his or her early involvement in the design process.





Although it is a very different kind of book, people and process also play a central role in David Orr's *Design on the Edge: The Making of a High-Performance Building*. Orr chronicles the story of the Adam Joseph Lewis Center built to house Oberlin College's environmental studies program, which he chairs. The book follows the center, which received national attention as an early model of ecological design, through planning, fund-raising, design, and construction. The story spans a decade, starting when the idea for the building was developed as part of a class that Orr taught in the early 1990s.

The book is part memoir, part sermon, and part sociological study. Orr weaves his own very personal account of the challenges encountered while trying to translate the vision for the building into reality with the history of environmental design, commentary about contemporary consumer culture, and observations about the politics of academia. The book also includes a plea not only for a revamp of campus construction, but of operations and curricula, as well.

Although it is more than a simple case study, *Design on the Edge* does provide insight into the obstacles and the considerable achievements of the Lewis Center. Despite ambitious performance goals and features such as a living machine for treatment of wastewater and photovoltaics, technological complexity was rarely to blame for the project's pitfalls, according to Orr. Instead, when it faltered, the cause was most often lack of communication among administrators, the architects, and the consultants. Naturally, every project has its own unique circumstances and accompanying set of human dynamics. Nevertheless, Orr's book is an important resource for architects, planners, and administrators contemplating a building project on a college campus or in any institutional setting. *J.G.*



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Tech News & Reviews

SmartGeometry conference marries form with function (digitally, that is)

The holy grail of integrated design still lies just out of reach. The idea of an all-in-one software package that would optimize such seemingly disparate elements as a building's structure, energy performance, and form has yet to advance beyond the conceptual phase.

The four directors of the group SmartGeometry (www.smartgeometry.org), a nonprofit educational charity interested in digital modeling, would like to change that. Started four years ago in London by a group of friends—Robert Aish, Lars Hesselgren, Hugh Whitehead, and J. Parrish—SmartGeometry organized a conference and workshop this January in New York City (the day-long conference, which followed a five-day workshop at the Hudson Hotel, was hosted at the Cooper Union by RECORD). The workshop focused specifically on teaching Bentley Systems' Generative Components (GC) software (Bentley sponsors the group). Algorithms form the basis of GC's parametric design tools, where users assign equations and rules to condition the creation of subsequent forms. For example, a rule could be as simple as defining a line as always occurring at the midpoint of another line, and regardless of how a designer may manipulate the overall model, that rule would always hold forth.

SMARTGEOMETRY'S CONCERN IS NOT SO MUCH TO GENERATE NEW FORMS, BUT TO MAKE COMPLEX FORM-MAKING EASIER.

The workshop participants were primarily architects and structural engineers from such firms as Skidmore, Owings & Merrill; Arup; SHoP; Buro Happold; and Grimshaw Architects. However, mechanical engineers and contractors, who could potentially represent significant constituencies for this software, were notably absent.

Aish, who is also a director of research for Bentley, said the GC software "facilitates the representation of ideas that are already a natural occurrence in architecture."

Among the two dozen presenters at the January 31 conference, Rob Whitlock, AIA, discussed his work at Kohn Pedersen Fox Associates (KPF) on the proposed CSCEC Tower in Pudong, China. Describing it in plan as an unfolded paper clip, Whitlock said KPF depended on GC, as well as other tools, to reconcile the building's complex forms into planar surfaces and ease a panelized construction process. Whitlock's example revealed the difficulty in current modeling techniques, since the tower was modeled in Rhino and then further developed with a combination of programs, including Autodesk AutoCAD, GC, and Microsoft Excel, to produce the design documents. Although this is not yet a seamless process, the fact many competing firms were participating in the workshop as an open collaboration illustrates how anxious designers are today to implement a smooth, all-encompassing design, analysis, and production software.

Matthew Herman, a member of Buro Happold's Computational Simulation and Analysis Group, said CAD software doesn't efficiently interface with thermal modeling programs. "We need to link the design tools to the analysis tools," Herman says. For example, Herman said there's no easy way to feed information on variable states like pressure and temperature into the form-making design considerations of parametric modeling programs. And although many firms use the beta version of GC, which Bentley intends to officially release as part of its standard MicroStation platform at its annual BE users conference in April, firms will likely continue to use the program in combination with many other tools from a variety of vendors. RECORD video interviews with SmartGeometry's facilitators can by found on www.archrecord.com. *R.F.* and *J.G.*

A new Web site simplifies finding green architects, builders

As sustainable design concepts increasingly infiltrate the lucrative residential design and construction market, homeowners looking for reliable information on local architects and contractors with knowledge of the field can encounter a frustrating process. That situation is the impetus behind the new Web site, www.greenbuildingblocks.com, which had a soft launch at GreenBuild 2006, held in Denver in November.

Now in beta form, the website hosts a growing number of professionals on pages that provide firm information and project portfolios. The site also functions as a network for local designers and contractors to connect. Need a sustainably minded



mechanical contractor in Stillwell, Kansas? Not a problem. The interface is straightforward. Consumers can access resources as diverse as energy auditors, real estate agents, and modular home manufacturers. While it doesn't yet cover the nation, it launched with 2,000 listings.

Prices for listings range from $249 to $1,195 for a full project portfolio, but the Web site has a special introductory offer. *R.F.*

Digitizing on the fly

Cliché or not, you've probably doodled the solution to a design problem on a cocktail napkin. And you've likely wanted to take the idea back to the office, but not necessarily the napkin. The Docupen RC800, a handheld scanner, will let you do just that the next time inspiration strikes in a bar or airplane.

Because users roll the 2-ounce, 9-inch-long, cordless device over the documents they wish to scan, rather than feed individual sheets through a slot, architects may find the Docupen helpful in situations in which pass-through-type portable scanners would be impractical. For example, it could be used during on-site meetings to digitize details sketched on a portion of a standard contract drawing sheet. The device produces reasonably



legible documents, although the quality does not approach that of flatbed scanners.

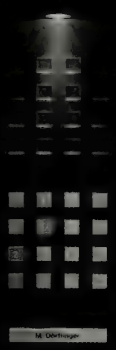
The Docupen connects to a PC or Mac via a USB port for downloading and for charging the gadget's lithium-ion battery. It is capable of scanning in four color or black-and-white modes. According to RECORD's not-so-scientific testing, the 8-MB memory can hold only two, full-color, 8½-by-11-inch images at maximum resolution. But it has the capacity for about 40 napkin doodles at the lowest black-and-white setting. Memory can be added with a MicroSD or TransFlash card.

The Docupen's list price is $299.99. Visit www.planon.com for more information. *J.G.*

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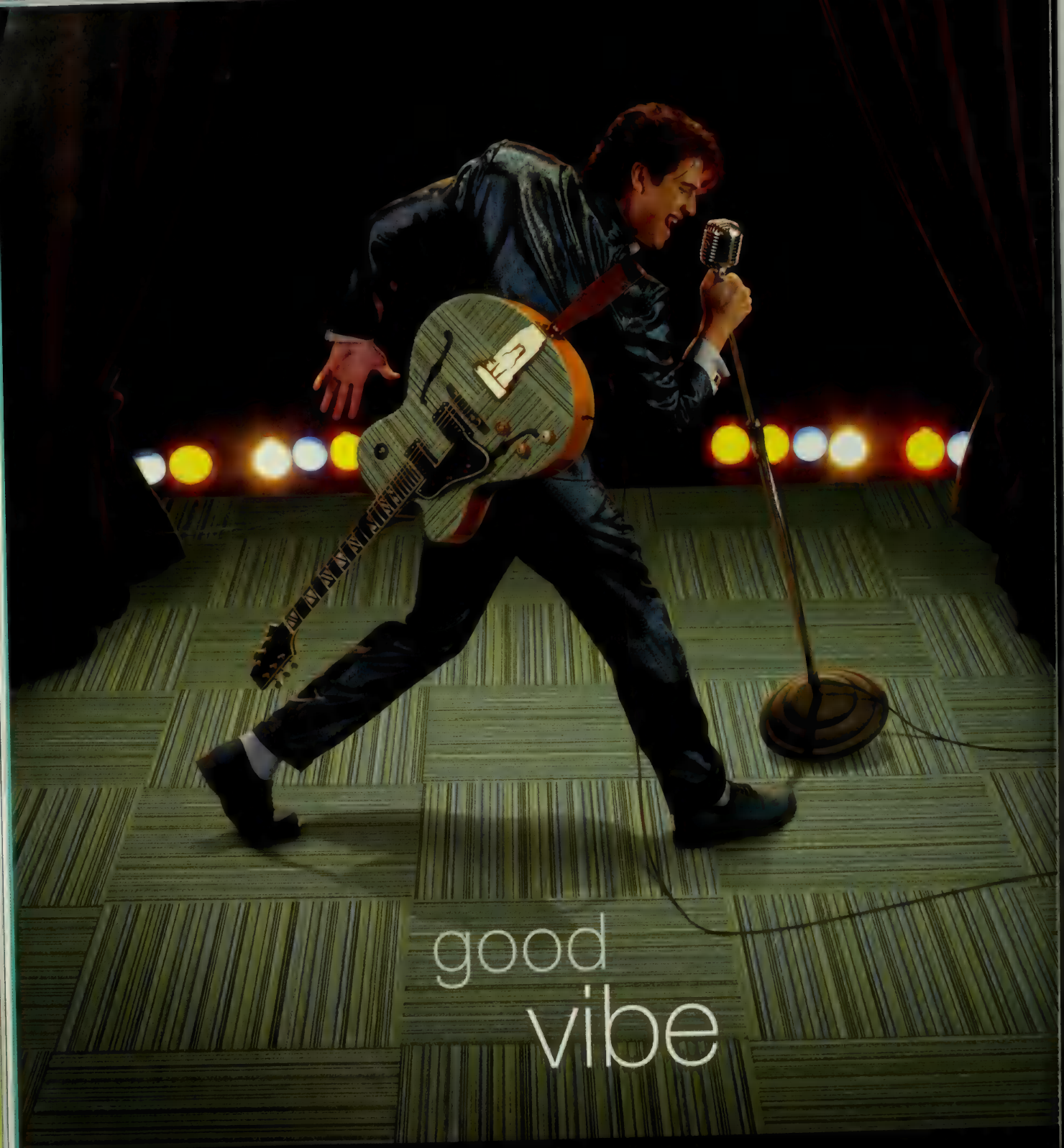
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Interiors

In the new math practiced in three projects, architects perform conversions by subtraction

BRIEFS

Super Potato Design is a new monograph, written by Mira Locher and published by Tuttle, on Takashi Sugimoto, the Tokyo designer whose firm, Super Potato, has created an impressive roster of restaurants, shops, and hotel interiors. The book features photography by Yoshio Shiratori of 41 projects, many of which combine inventive use of new and old materials with sculptural spaces and dramatic lighting. At the Grand Hyatt Hotel in Tokyo, Sugimoto designed not only two restaurants and a spa, but a pair of wedding chapels (one Shinto, the other Christian) that offer strikingly different yet complementary takes on shaping space and creating architectural poetry with severely limited palettes of materials (mostly wood and stone). *C.A.P.*

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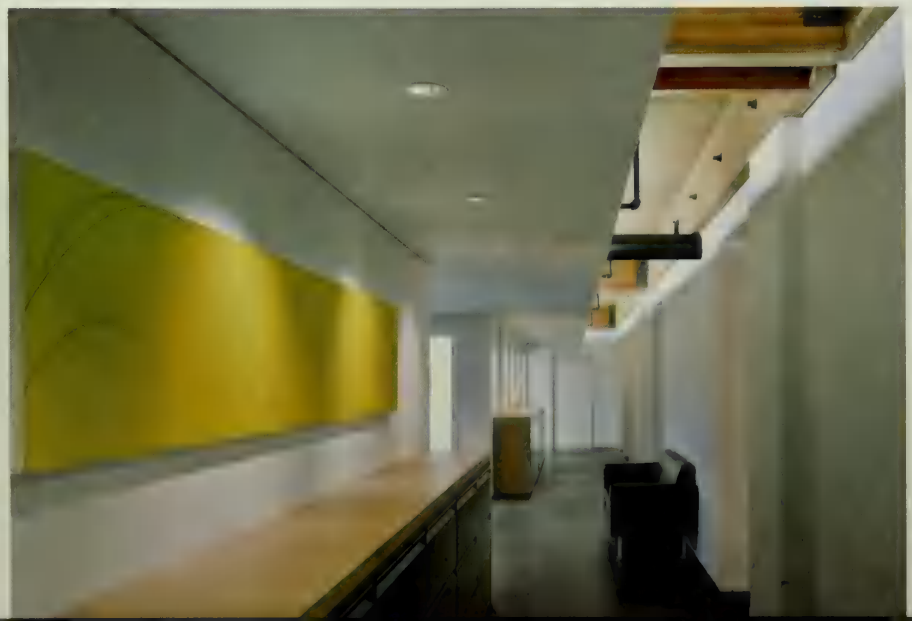
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Gordon Kipping Architects/ G TECTS
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Some designers push the envelope. But here we present a trio of architecture firms that decided to reveal the envelope. Stripping away years of accretions and layers of insertions, these designers have created interiors that draw much of their impact from the integrity of their containers. Hung ceilings and interior partitions come out, while structural frames and roof trusses assume leading roles in establishing the character of a place. When handled properly, such a strategy has many advantages—including maximizing space and volume, bringing more daylight inside, and creating visual connections. This approach also initiates a dialogue with the past that can enrich the present.



At the new offices of his firm, Kanner Architects (right), in Santa Monica, California, Stephen Kanner, FAIA, turned the lamella-truss ceiling and industrial framing of an old airplane-parts factory into the stars of his design. While he exposed the building's great bones, he didn't just defer to the original architecture. Instead, he played off it like a good actor responding to the lines of a fellow performer. On the opposite side of the country, in Westport, Connecticut, Roger Ferris, AIA, took a similar approach while creating a very different kind of work environment for his growing architectural practice. Ferris stripped away paints and stains from the timber framing of an old warehouse on the Saugatuck River and exposed floor joists to areas below, creating a rougher but warmer set of spaces than the cool, elegant setting Kanner designed for his firm. In New York City, Gordon Kipping performed a different kind of striptease with the envelope of his Issey Miyake store on Madison Avenue. Set inside the base of a nondescript postwar apartment building, the store didn't have any glorious trusses or muscular timbers to expose—only I-section steel columns—so Kipping played a jazzy kind of visual game with its ceiling. Revealing and obscuring strips of what lies above it, the checkerboard ceiling acts as a dynamic element, both energizing and unifying the space.

All three of these projects use an economy of means to maximum effect. By revealing all or portions of the fabric containing them, these designs can keep everything else fairly simple. *Clifford A. Pearson*



The architect stripped the old building of its interior finishes, exposing brick walls and timber framing, including the fir joists (above and left). Black slate in the reception area (above) complements recycled materials used on the patio.

The new headquarters of **Roger Ferris + Partners** in Westport, Connecticut, revives a waterfront warehouse

By John Peter Radulski

Whether it's a cozy restaurant designed for one of the town's film notables (Paul Newman), a 1.5-million-square-foot corporate headquarters in Stamford, Connecticut, for an international financial giant (The Royal Bank of Scotland), or his own offices, Roger Ferris, AIA, approaches each architectural and design program with an eye focused on client needs and expectations.

Ferris, who had lived in New Canaan, Connecticut, from the age of 14, then studied at Columbia and Harvard, returned to the state in 1986 when he established his own firm, Roger Ferris + Partners, in Westport. With a team of 12, he moved into a 1908 building that was once the town hall. As the firm expanded, it stayed in the building, but leased two ancillary spaces. Finally, Ferris decided to bring his staff of 55 under one roof. For the new headquarters, the architect transformed 2,200 square feet on the top two floors of 285 Riverside Avenue, a four-story, 1910-era warehouse, beside the Saugatuck River.

The new offices layer public and private areas. Ferris says that it might be "unusual" for clients to enter the reception area and then pass a stainless-steel kitchenette and seating area on the way to a conference room—all the while glimpsing the large, adjacent patio overlooking the Saugatuck. But, he adds, "For me, the quality of the office space is important to not only attract clients, but also to attract and maintain a great staff."

To achieve this, Ferris removed the "cosmetic" materials that had covered almost all the interior surfaces from a previous renovation. Newly exposed brick walls were painted white and the fir joists and beams sandblasted. In the fourth-floor reception area, where visitors enter via elevator, honed, black-slate floor tile measuring 18 inches square complements the wood and the patio surfacing made from recycled automobile tires. Suspended ceiling and wall panels, variously fabricated from Sheetrock and acoustical plaster, bring the 12-foot ceilings and a row of windows into a personal scale. Here, Ferris introduced a part of his extensive private collection of contemporary art. "I've collected for a long time," he says, noting that the pieces, hung throughout the two floors of the offices, are always "debated" by the employees. "The revolving selection of artwork infiltrates the dialogue about architecture" among the staff. Damien Hirst, Jenny Holzer, Robert Mangold, Edward Ruscha, and Vera Lutter are among the artists whose work is displayed in the Ferris offices.

The design studio, accommodating about 30 workstations, is on the third floor, as are the principal's office and those of other partners and support staff. An addition to the building, dating from the early 1970s, adjoins this level. Ferris made an almost seamless transition between the two by continuing the finish materials: sandblasted wood structural elements, white brick walls, and piers demarking the original building's walls.

As he does for his roster of corporate, private, and institutional clients, the architect looked for energy-efficient materials and building methods for his own offices. Carpeting throughout is fabricated from recycled fiber; paint is highly light reflective; and the patio flooring is an exemplar of reused product. Casegoods, including bookcases and cabinets, are constructed from recycled wood veneers previously destined for waste.

Currently, Ferris is developing a design prototype that can convert the bottom two levels of the ubiquitous transmission towers dating





The offices feature art, including work by Jenny Holzer (above). Shelves are made from recycled wood (below).

John Peter Radulski often contributes to RECORD*'s lighting and interiors sections.*

Project: *285 Riverside Avenue, Westport, Connecticut*
Architect: *Roger Ferris + Partners—Roger Ferris, AIA, Phil Hubbard AIA, Stuart Garber, AIA, Dan Radman, AIA, Myron Mirgorodsky, design team*
General contractor: *Pappajohn Construction*

Private and public spaces are woven together, so that visitors walk past a stainless-steel kitchenette (right) after checking in at the receptionist's desk. The design studio accommodates 30 workstations (above).



from the WPA-era into low-cost, low-impact houses. "You can buy [the bases separately] and inexpensively," he says. Each provides a 25-foot-square floor plate that is readily adaptable to residential purposes, the architect says. Other projects on the boards are a hospital in Memphis, an office building in Stamford, and a hospice on Long Island. He admits to "readily subverting the classical ideas of a golf clubhouse" for a project about to open on the east end of Long Island.

Twenty-one years after starting his practice in Westport, Ferris's new offices, just about a mile away from his first one, provide an expansive and flexible space to carry out these projects. The former warehouse also serves as a plant for the architect's continuing exploration of the relationship between contemporary art, interior design, and architecture, as well as a stimulus for their creative interplay. ■

Sources

Carpet: *Interface (Huega)*

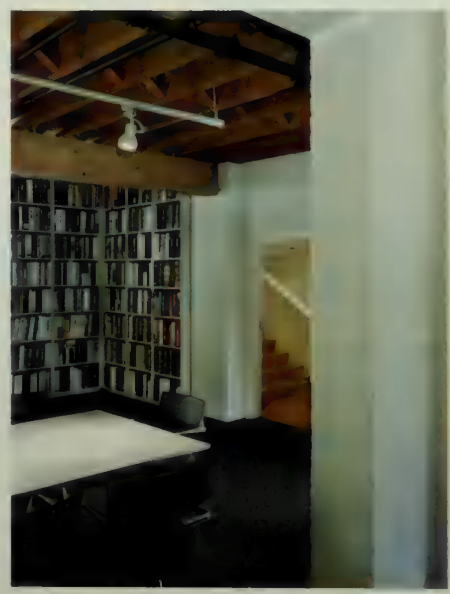
Kitchen: *Legere Woodworking*

Lighting: *Zumtobel (pendants); IRIS (downlights); ERCO (track lights); Winona (wall-mounted uplights)*

Furniture: *Knoll (Crinion tables); Vitra (Meda chairs and airline seats)*

For more information on this project, go to Interiors at **archrecord.construction.com**.

An environmental ethos directs much of Ferris's work. In this project, he specified carpeting made from recycled fiber (above and right) and a patio surface made from reconstituted tires.





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Kanner preserved the existing building's 30-foot-high, lamella-truss ceiling and installed new glass roll-up doors.

Architect Stephen Kanner converts an airplane-parts factory into the new **Kanner Studio** in Santa Monica

By David Sokol

Success has been bittersweet for Stephen Kanner, FAIA. Expanding Kanner Architects meant that Kanner, the third-generation principal of the firm, would have to move out of the Los Angeles office where he had worked since joining his father, Charles, in 1982. "It was leaving a place where I grew up. But we needed to grow and communicate better with each other," says the architect. "And the space we found was so beautiful." His scheme for the new workplace stresses continuity with the past by highlighting the character of the historic interior—and by reinterpreting some of the best elements of the firm's former home, too.

The architects at Kanner previously worked in one of the oldest buildings in L.A.'s Westwood section, occupying 5,600 square feet divided evenly among storefront and mezzanine levels. The predominantly white space was "spectacular," Kanner remembers. Its ceiling, for example, was lined with bowstring trusses the firm uncovered while reinforcing the masonry structure. But the two-story arrangement obliged the designers to run up and down the stairs throughout the day. "That was somewhat inconvenient," Kanner admits, "and the two ground-floor spaces were separated by a tall bearing wall." Moreover, the busy Westwood site sat just around the corner from a pair of the city's largest old theaters, so Hollywood premieres would often hinder access to and from work.

In 2002, several years after his father passed away, a threat of displacement, though ultimately unsubstantiated, forced Kanner to seriously consider a change of address. His mother, an interior designer, happened across a furniture showroom in Santa Monica, and after piquing her son's interest in the spot, she asked the owner if he was willing to vacate and sublease the space. He was.

The single-story, 1930s building, measuring 100 by 100 feet and featuring a single, curved corner to mark a street intersection, had been an airplane-parts factory, auto-repair shop, and home to several retailers. Kanner was particularly smitten by the 30-foot-high, lamella-truss ceiling, which spans the building from front to back and eliminates columns. Other characteristics elicited less enthusiasm: "It had no air-conditioning, and very little infrastructure. We had to completely redo the space from the standpoint of networking, electrical drops, air-conditioning, and fitting in our storage areas, bathrooms, and desk systems."

Remedying these shortfalls would require major surgery. Still,

David Sokol, former acting news editor of ARCHITECTURAL RECORD, *regularly writes for publications such as* Azure, Interior Design, *and* Metropolis.

Project: *Kanner Studio, Santa Monica, California*
Architect: *Kanner Architects—Stephen Kanner, FAIA, design principal; Claudia Wiehen, John Mebasser, David Ellien, Erin Nies, design team*
General contractor: *MT Construction*



Kanner highlighted the building's large, open volume, using glass for the few partitions. Fabric curtains hung from ceiling tracks can be pulled to divide the space into a number of different zones or used as screens for projecting images.

Kanner wanted this open rhinoplasty to look more like a quick outpatient visit. "There's so much inherent beauty in the building. We really wanted to keep our design very pure, very simple."

The original brick walls and lamella trusses received a fresh coat of white paint. In a more complicated process, electrical and networking conduit was laid by saw-cutting the concrete floors; an Ardex topping layer establishes visual consistency between the patch jobs and untouched concrete. "Even after we put in our desks, we did wire management," Kanner adds. "It's really very tidy. When you get a chance to do this once or twice in your life, you want to get it right." To install air-conditioning, two 5-ton cooling units were placed on adjacent buildings' flat roofs. Inside, spiral ducting, also painted white, hangs from stainless-steel cables. "They add a lot of visual interest to the space," Kanner comments.

Except where necessities were layered on, Kanner maintained the openness of the original, hangarlike volume. Visitors and clients cross a threshold bounded by a reception desk and a row of workstations, while beyond it, conference areas and less dense working zones occupy various parts of the cavernous room. Movement among these vignettes is easy and gracious, accurately suggesting the firm's nonhierarchical organization. When privacy or a video-projection surface is needed, employees can draw any of a series of curtains hung from ceiling tracks to create various zones.

Kanner did treat his patient to a few contemporary flourishes. A storage room wrapping behind the interior in an L shape includes uplights that, at night, transform the textural lamella-truss ceiling into a highly dimensional pattern of diamonds. In an amped-up version of the old Westwood office's storefront windows, a glass sectional roll-up door replaced a sheet-metal, overhead-coiling door at the front elevation. And like all good nip-and-tuck artists, Kanner highlighted the attractive features he found—such as a 10-inch-deep, rectangular pool lined with white glass mosaic tile near a central conference area—by matching it with a rejuvenated setting.

The 30-person staff no longer enjoys glimpses of the occasional movie-launching celebrity. Instead, daylight and fresh Pacific breezes stream through the new office, and so does an implicit mission statement. "We believe our architecture has this kind of Southern Californian, optimistic quality to it," Kanner explains, "and I think our space absolutely portrays that inspirational, uplifting nature." ■

Sources

Long workstations: *USM Modular (Haller Systems)*
Workstation pods: *UNIFOR*
Custom cabinets: *Formica*
Paints: *Frazee*
Eames aluminum management chairs: *Herman Miller*

For more information on this project, go to Interiors at **archrecord.construction.com**.



To create a link with the firm's past (and save money), Kanner brought most desk chairs, glass tables, and some flat files from the old office in Westwood (above). A mosaic-tile-lined pool provides a tranquil note to the common area (right).





Gordon Kipping delivers a powerful optical punch to **Miyake Madison** on New York's Upper East Side



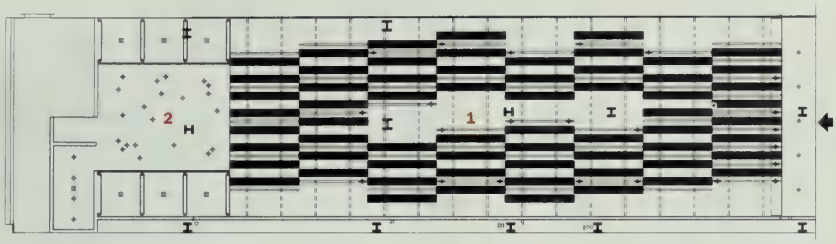
By Suzanne Stephens

The downtown boutique aesthetic that emerged in New York City's SoHo loft district in the late 1970s caught on—and stuck around—largely because it showed off arty clothes to striking effect. Architects and designers blithely stripped the deep and narrow loft spaces to their bare bones, leaving only cast-iron columns, concrete or wood floors, and white walls and ceilings, the latter often revealing ducts, pipes, and light tracks. Against this setting, clothes, spaciously arrayed as if in an art gallery, easily stood out.

A new shop for Issey Miyake on Madison Avenue at 68th Street illustrates that the loft style also works in the ultra-chic purview of Manhattan's Upper East Side. In an area known for its lacquered look (both shops and shoppers), a bit of a downtown feeling can juice up the ambience. When Issey Miyake changed locations on Madison last fall, it asked Gordon Kipping Architects/G TECTS, an architectural firm that worked with Frank Gehry on the titanium-infiltrated Miyake flagship store, in the Tribeca neighborhood, to design a small, 2,600-square-foot outpost.

To draw shoppers into the boutique, Gordon Kipping, AIA, glazed the entire 24-foot width of the storefront, framing it in black solid surface material. He then energized the interior by focusing on the ceiling plane. Here, backlit fluorescent panels, 10 feet long and 10 inches wide, alternating with black voids of the same dimension mounted with metal-halide spots, create a syncopated, elongated checkerboard pattern. The muted floor is 2-inch-thick concrete deck. I-section steel columns, painted white, run down the middle of the space. With a $400,000 budget,

A deep, narrow space in a 1960s residential building turns into an optical art environment by night (opposite, bottom) with the help of a fully glazed storefront. In the retail space (1 in ceiling plan, right, and photos, below and opposite, top), elongated light panels and black slots of exposed ceiling create a jazzy checkerboard pattern drawing visitors to the rear fitting rooms (2 in ceiling plan, right).



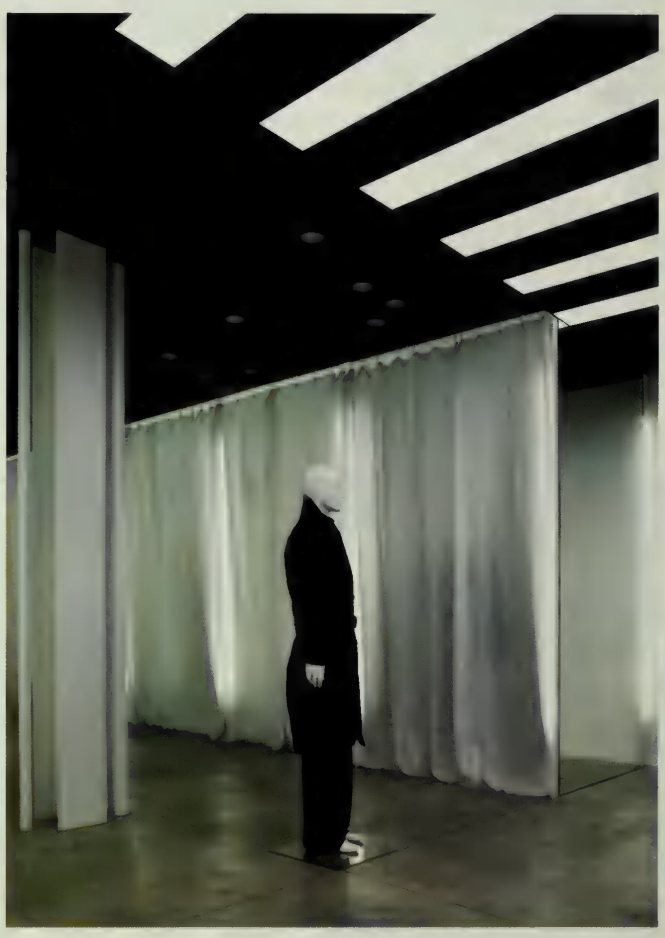
CEILING PLAN

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Beneath the high-voltage ceiling, serenity reigns, with a muted backdrop of white walls, a concrete floor, and I-section columns painted white. On the south wall of the shop (below), the architects created a Minimal white-on-white composition using recessed shelves and freestanding, plastic-laminate counters. At the rear of the store is the fitting area, where dressing rooms are concealed by four layers of a gauzy fabric (right). The fabric is pulled over vertical fluorescent light tubes at the front of the booths, while other fluorescent fixtures are hidden by mirrored partitions dividing the booths.





the architects installed plastic laminate counters, glass vitrines, and recessed shelves along the white south wall, and displayed the clothes—the only note of color—on white steel racks along the north wall. In the fitting area at the back, four-layered curtains of diaphanous, white fabric almost conceal bright, white, vertical fluorescent tubes. Fluorescent lighting, tucked behind the mirrored partitions dividing the dressing rooms, adds to the luminous, if surreal, effect.

Acknowledging the well-known fact that fluorescent light casts a deathly pallor on clothes, art, and people, Kipping explains that the fluorescent lights chosen for the ceiling are mixed with warm halide spots. "We needed a high light level inside," he says. "When you walk down the street, it is usually hard to see the merchandise because of storefront reflections and outdoor light levels." About the dressing-room wattage, Kipping admits, all is revealed in this eerie lighting. Obviously, under these lablike conditions, textures of fabrics, color dyes, and craftsmanship need to be of the highest quality. Fortunately, the Miyake clothes can more than withstand the test. ■

Project: *Miyake Madison, New York City*
Architect: *Gordon Kipping Architects/G TECTS—Gordon Kipping, principal; Nora Peyer, project architect; Maria Stefanidis, Brooks Atwood, Styliani Daouti, project team*
Lighting designer: *Lightfield*

Sources
Solid surface exterior: *Dupont Corian*
Plastic laminate: *Formica*
Paint: *Benjamin Moore*

For more information on this project, go to Interiors at **archrecord.construction.com**.

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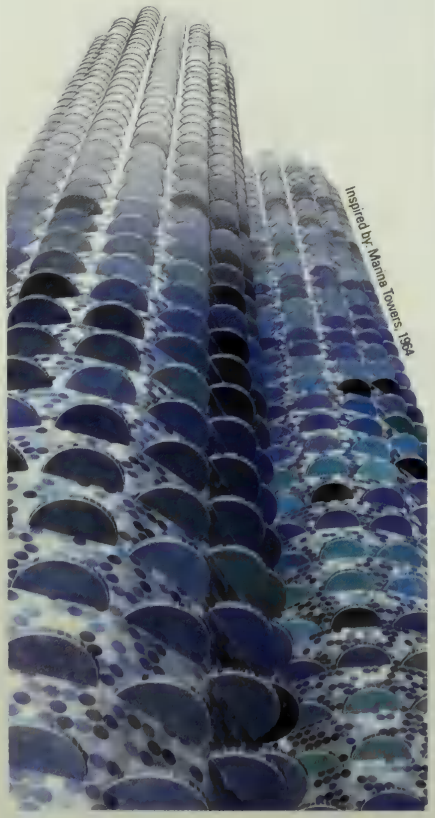
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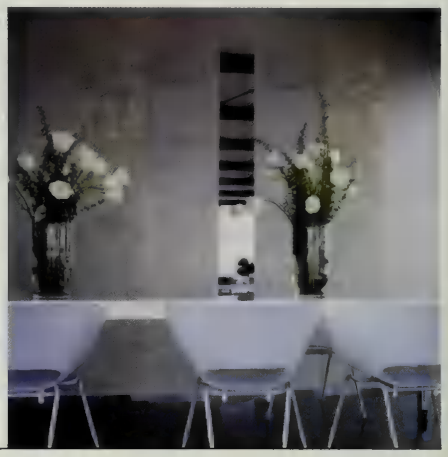


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Interiors Products

► Prints and perforations

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◄ Seating standouts

These three designs were among the Top Ten Chairs of the Year displayed at Promosedia, the international chair exhibition held last September in Udine, Italy. Voted Residential Chair of the Year, Laguna (near left top) was designed for Malina by Adriano Balutto in slats of eco-friendly oak. Studio Archirivolto designed Jam (near left bottom) for Calligaris. The acrylic seat and metal-alloy pedestal are available in a range of configurations and colors. Elliptical holes puncture the backrest. The weblike Spider chair (far left), designed by Daniel Rode for P.S.M., is made of laminated veneer oak with a wax finish. Spider is also available in wengé or bleached oak colors. Promosedia, Udine, Italy. www.promosedia.it **CIRCLE 211**

► Welcome back, Mr. Nelson

The latest reintroduction from Herman Miller is the Nelson Swag Leg Group originally designed by George Nelson. First introduced in 1958, the group's chairs, tables, and desks can be used individually or together in the home or office. The Swag Leg Desk (shown) features colorful cubbyholes at the back, including one large enough for a laptop. It is finished with a white laminate top and walnut-veneer edge banding that coordinates with a solid walnut stretcher. Swaging—applying pressure to taper and curve a metal tube—is used to produce the 16-gauge chrome steel legs. The group also includes a molded plastic chair, work tables, and dining tables. Herman Miller, Zeeland, Mich. www.hermanmiller.com **CIRCLE 212**



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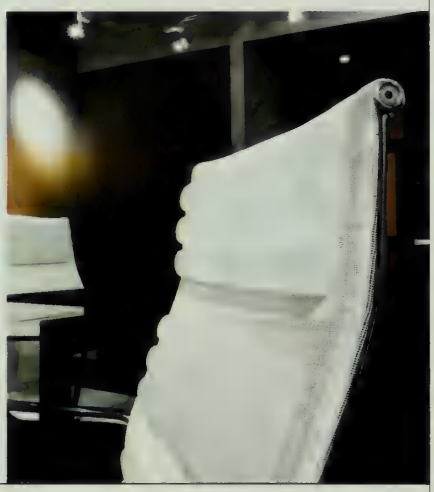
◄ Stick up some privacy

dVider is a new company as well as the name of its signature room partition system. The vertically and horizontally adjustable partitions use support poles with a fabric sail stretched in between measuring 4' wide x 6' high or 6' square. Chrome steel tubes slot together on either side of the fabric and have a height range of 7'5" to 12'5". Plastic feet support the vertical poles, and manually applied pressure between the floor and ceiling hold up the room dividers. The sail can be decorated with a line of vinyl decals; two examples of the Nature group are shown. dVider, New York City. www.dvider.com **CIRCLE 213**



► A comforting classic

The New York City–based environmental design firm WalkerGroup applied Elexium Pod Technology to retrofit vintage Eames Aluminum Group Executive chairs, originally manufactured by Herman Miller, as part of a larger project for a leading global advertising agency. The chair features translucent Elexium cushions that mold to body shape and allow at least three seconds of displacement before returning to their original form. The technology can also reduce fatigue and repetitive-stress syndrome. The chairs are available through special order from Willat Design Works, the creator and designer of the Elexium system. Other chair designs can be customized as well. Willat Design Works, Los Angeles. www.elexium.net **CIRCLE 214**





◄ Create a little tension

Transformit's proprietary tension fabric system includes modular components that create space dividers, temporary walls, privacy bays, conversation nooks, and dressing rooms. The lightweight, tension-fabric structures are suited to hospitality, retail, pop-up store-display, and event applications. Frames in the system accept up to three layers of fabric, enabling the use of custom layering, lighting, and graphic techniques. Transformit, Gorham, Maine. www.transformitdesign.com **CIRCLE 215**

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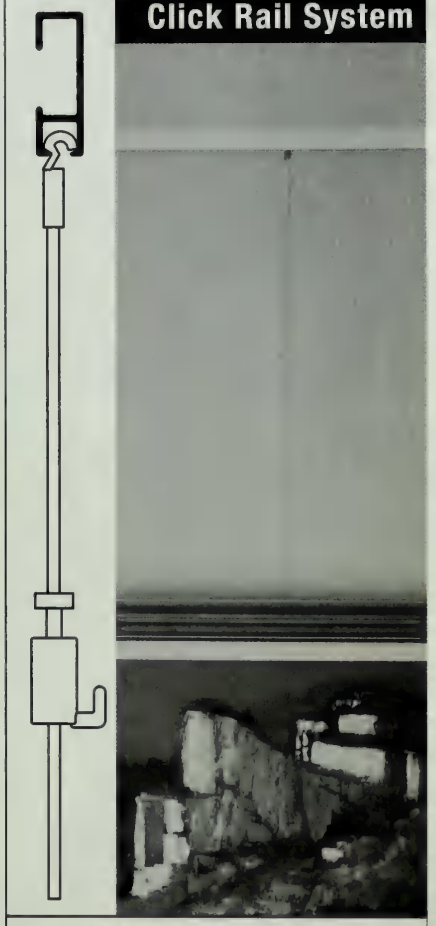
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Product Focus Green Choices

Building product manufacturers continue to make strides in the green arena, from "leasing" materials they will recycle at a later date to pressuring suppliers to follow sustainable practices. For the latest options, check out the GreenBuild Expo from 11/7 to 11/9 in Los Angeles. *Rita Catinella Orrell*







Clockwise from top left: Certified, rough-sawn, and seasoned timber ready to prepare for an order; a garden room designed to connect two houses; a conservatory greenhouse; logs of certified sapele wood from the Republic of Congo.



Glass building manufacturer helps create first sustainable forests in West Africa

Marston & Langinger, a designer and producer of conservatories, garden rooms, and other glass buildings, has helped to create the first "green" forests in West Africa, and attain certification from the Forest Stewardship Council (FSC). Company founder and design director Peter Marston personally lobbied the Republic of Congo government to ensure reforestation and helped to gain FSC certification for hardwood suppliers in the region.

"We pressed suppliers in Ghana, Cote D'Ivoire, and Cameroon to develop FSC forestry management [as well], but they were serving a market that, even now, sees sustainable forestry as little more than fancy marketing. We believe that by publicizing that we'll only buy FSC, we'll change attitudes," explains Marston. Prior to FSC intervention in the region, hardwood from West Africa had been illegally or irresponsibly logged.

The company typically harvests about one million dollars of sapele hardwood from the world's second-largest rain forest, the Kabo forest in the Republic of Congo. The trees will be carefully felled with a minimum of damage to the surrounding woodland, and new trees of the same species will be planted to replace them. The company also imports certified American tulipwood when durability is not a priority.

In addition to its FSC-certification requirement, Marston & Langinger has other environmentally-friendly policies in place. These include using sawdust and shavings from the manufacturing process to heat the company factory; developing water-based, nontoxic paints that comply with VOC levels for 2007 and 2010; using high-performance insulated glass; issuing salesmen-only hybrid cars for business use; and adhering to a strict, company-wide recycling policy.

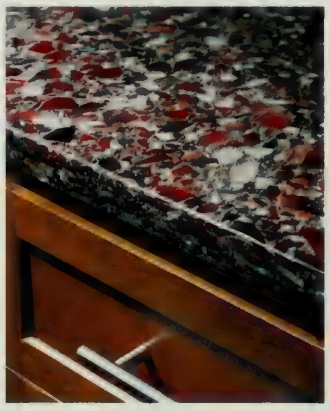
"A good, well-managed environmental policy has less impact on profitability than generally claimed," says Marston. "[You need to] make it work for your organization. Everybody needs to follow suit." Marston & Langinger, New York City. www.marston-and-langinger.com

CIRCLE 216



◄ To buy or lease?

Chroma resin from 3form has been reinvented so it can be reprocessed for a second life. Developed in conjunction with Bayer Material Science, Chroma features Aura, a proprietary color-infusion process that allows 3form to infuse nontoxic colorant at a depth of 250 microns. To encourage recycling, 3form will buy back the panels and reprocess them through its Reclaim program. The material can also be "leased" for a defined period of time and then returned for reprocessing. 3form, Salt Lake City. www.3-form.com **CIRCLE 217**

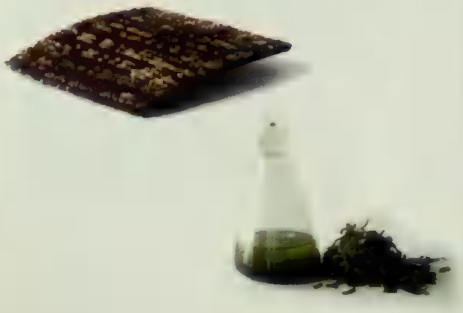


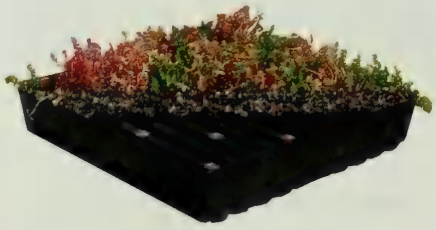
◄ From curb to counter

Composed of a patent-pending formula that includes recycled glass, cement, additives, and pigment, Vetrazzo surfacing can be used for countertops, tabletops, flooring, and architectural cladding. All of the glass used in the product is recycled, and it makes up to 85 percent of the final material. Glass sources include curbside recycling programs and a range of postindustrial sources. Fourteen design options are currently available. Vetrazzo, Richmond, Calif. www.vetrazzo.com **CIRCLE 218**

▼ Dissolving solution

Shaw's EcoWorx Performance Broadloom is the commercial carpet industry's first "cradle to cradle" carpet backing for broadloom, according to the manufacturer. The product utilizes a process where the carpet and backing (below at top) are introduced into a biobased dissolving solution that melts the backing and separates it from the fiber (below at bottom). After the solution evaporates, the polymer can be recovered and recycled. Shaw Contract Group, Calhoun, Ga. www.shawcontractgroup.com **CIRCLE 219**



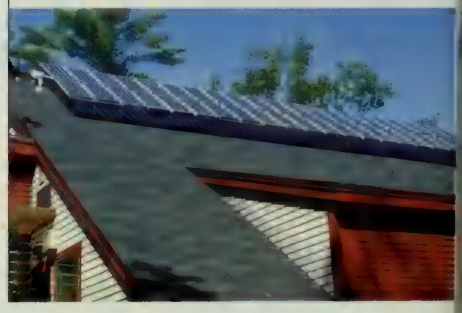


▲ System to keep roof green

The Advanced Vegetative Roof System is a water-efficient green-roof system that incorporates Zeba-branded moisture-release technology for faster, fuller vegetation establishment and lower maintenance costs. Zeba's cornstarch-based granules work like a sponge, holding and releasing water as needed and reducing the need for irrigation systems. The system weighs 15 lbs. per square foot when fully saturated. Columbia Green Technologies, Wilsonville, Ore. www.columbiagreenroof.com **CIRCLE 220**

▼ Cooler PV system

The SolarWall photovoltaic/thermal system includes PV panels placed over SolarWall transpired collector panels that balance the air flow behind each PV module. In addition to converting sunlight into electricity, the system collects the residual heat energy and delivers both heat and electricity in usable form. The manufacturer claims the system can raise total solar efficiency to 50 percent and reduce payback periods by as much as half. Conserval Systems, Buffalo, N.Y. www.pvthermal.com **CIRCLE 221**



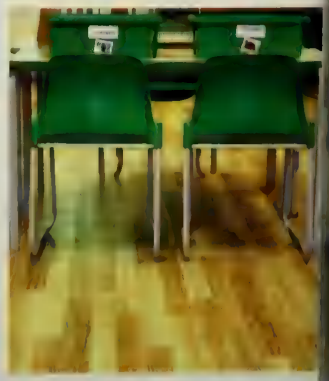
► Atypical green washing

Bosch has added an EcoWash option to its latest collection of Energy Star–qualified Nexxt washers. Introduced at last month's Builders' Show, the EcoWash option will be added to other Bosch products in the near future. A single push of the "green" button optimizes heating cycles for greater efficiency, without affecting cleaning results. All Nexxt washers exceed the strict 2007 federal regulatory standards for energy. Bosch, Huntington Beach, Calif. www.boschappliances.com **CIRCLE 222**

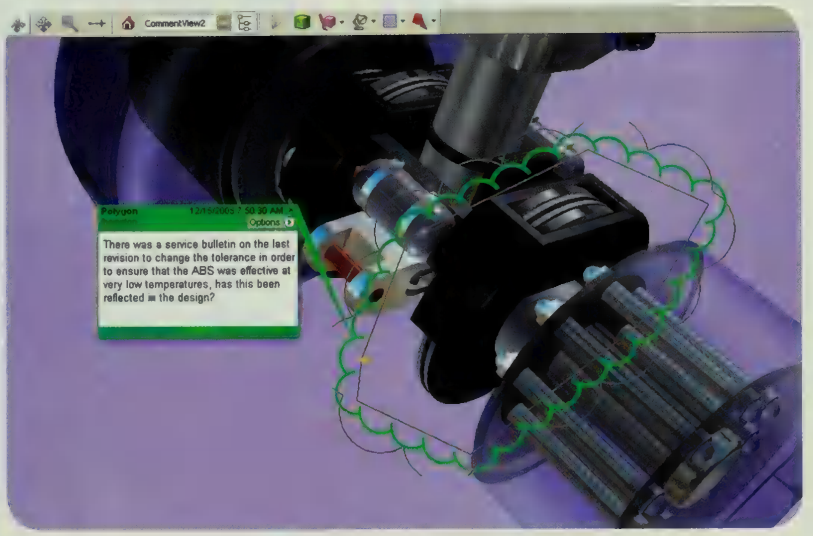


► Ecopolymeric flooring

Stratica ecopolymeric flooring emits virtually no VOCs and will not compromise indoor air quality. The PVC- and chlorine-free floor features a Dupont-engineered Surlyn polymer surface that requires no harsh chemicals to maintain. Stratica is lightweight, but tough and abrasion-resistant, even in high traffic zones in health-care, education, airport, and retail environments. Amtico, Atlanta. www.stratica.com **CIRCLE 223**







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Product Briefs

► Seeing double

The first two panoramic Twin elevator systems in the world have been installed and put into operation in the Main Triangel building in Frankfurt, Germany, by ThyssenKrupp. The Twin system offers two independent cabs running in one shaft, taking up less room than conventional elevators and freeing up valuable space. The glass cabs running in an open shaft allowed the architects to maintain the light, open concept of the largely glass facade. In addition, none of the switches or cables are visible. ThyseenKrupp Elevator, Dallas. www.thyssenkrupp-elevator.com **CIRCLE 224**



► Tougher texting

OtterBox offers a complete line of rugged cases for technology products, including tablet PCs, laptops, iPods, and handhelds. The OtterBox 1930 and 1931 cases are designed specifically for BlackBerry brand handsets, and allow access to phone and data functions right through the case. Ideal for construction sites, the cases provide grip and drop protection and water-resistant access to keypad, scroll wheel, and buttons. The cases are constructed of a polycarbonate/ABS shell and a molded rubber interior that cradles the handset. Optional accessories include a standard swivel belt clip. OtterBox, Fort Collins, Colo. www.otterbox.com **CIRCLE 225**



▼ Resilient roof board

Invisa is a new, resilient, lightweight roof board designed as a cover-board component of a new or existing roof system. Invisa provides a protective layer for the insulation while adding stability to the membrane above. A patent-pending high-density polyisocyanurate technology is bonded in-line to coated fiberglass-reinforced facers, providing resistance to water and hail. Invisa has been tested in PVC, TPO, and EPDM single-ply systems as well as JMCleanBond SBS modified bitumen roof systems. The product is lightweight enough to cover existing materials rather than requiring that they be ripped out, and allows for easy and efficient scoring, cutting, and snapping. Johns Manville Roofing Systems, Denver. www.jm.com **CIRCLE 226**







▲ Seal of approval

Spanning across the 29th floor of New York City's new Hearst Tower, the Good Housekeeping Research Institute includes 2,800 square feet of brilliant white CaesarStone quartz countertops. Designed by Lord Norman Foster, the 16,000-square-foot Research Institute serves not only as a test kitchen, but as a tour destination for readers and advertisers. The countertops' custom color complements the institute's custom white cabinetry and stainless-steel appliances. Made of 93 percent quartz and 7 percent polyresin, the countertop is backed by the Good Housekeeping Seal. CaesarStone, Sun Valley, Calif. www.caesarstoneus.com **CIRCLE 227**

► Concrete cinema

In cooperation with students Christoffer Dupont and Line Langballe and Danish concrete component manufacturer Dalton Beton, Innovation Lab has developed a transparent concrete screen that can be used to animate exterior and interior walls. The heavy screen consists of concrete with embedded optical fibers, arranged as pixels that are capable of transmitting natural as well as artificial light. The light-admission points are located on the back of the screen where the fibers are positioned, and the light or picture (shown is the Innovation Lab logo) will then be displayed in pixels on the front. The light source can be a projector emitting either pictures or film footage. Innovation Lab, Arhus, Denmark. www.innovationlab.dk **CIRCLE 228**





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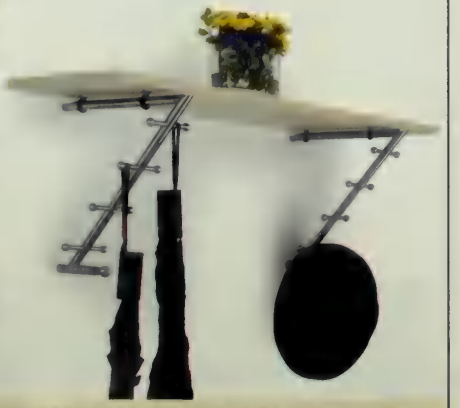
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Product Resources: Literature

New in the louver collection



This 2007 catalog features Airolite's line of architectural louvers. Introducing 17 new louver types, the catalog provides photographs, CAD details, and performance ratings for more than 40 customizable louvers, including storm-class, stationary, drainable, acoustic, sightproof, adjustable, combination, and fabricated metal louvers. Airolite, Marietta, Ohio. www.airolite.com **CIRCLE 229**



Doorway to another kind of catalog

Special-Lite's commercial entrance system products for 2007 are now available by CD catalog. The Windows-based CD provides a photo gallery; exportable CAD drawings; brochures; sales sheets; order forms; charts for color selections, windload, and deadload; and information on warranties, product training, door handling, and cleaning instructions. Special-Lite, Decatur, Mich. www.special-lite.com **CIRCLE 230**

A mantel of one's own

New catalogs from Pinecrest illustrate the largest selections in the mantel and grille industries. A total of nearly 400 pages contain color photography and drawings of 300 mantel designs and more than 150 grille designs. The Pinecrest custom design department will even carve personal designs on overmantels. Pinecrest, Minneapolis. www.pinecrestinc.com **CIRCLE 231**

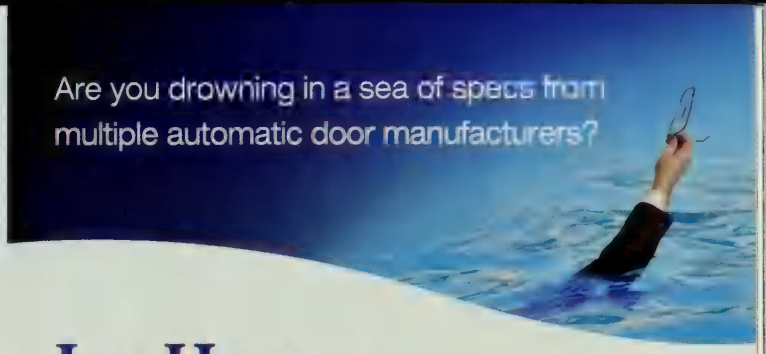




The color nothing

With 60 2" x 2" swatch cards, the *Pantone View Colour Planner* reveals "minimalism" and "nothingness" as the ideals behind color trends for Summer 2008. The forecasting tool provides specific breakdowns of each palette for harmonies, suggested color combinations, and suitable patterns and fabrics according to end use. Pantone, Carlstadt, N.J. www.pantone.com **CIRCLE 232**

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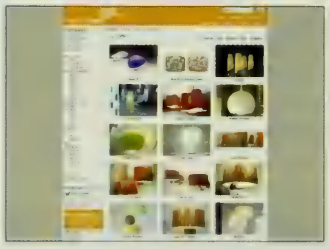
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Product Resources: On the Web

www.pavegreen.com

Four simple pages outline asphalt's contribution to energy and recycling, performance, water quality, clean air, and cool cities with information as impressive as the EPA's announcement that the asphalt industry is America's largest recycler. Although devoted solely to the green aspects of the material, a discreet link to the Asphalt Pavement Alliance puts further information within reach.



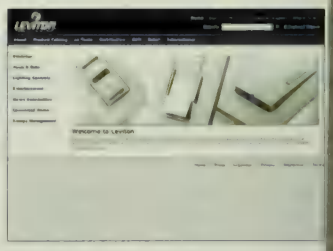


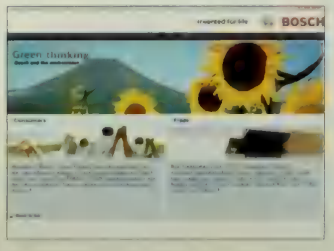
www.moderntots.com

ModernTots has made a strong impression as one of the modern design industry's underrepresented niche markets—children. Boasting bold images of their designs with large color and texture samples, the site can be explored by design and/or age categories. The effort required to keep your eyes on the site's infant-sized font, however, is a stress most visitors could do without.

www.leviton.com

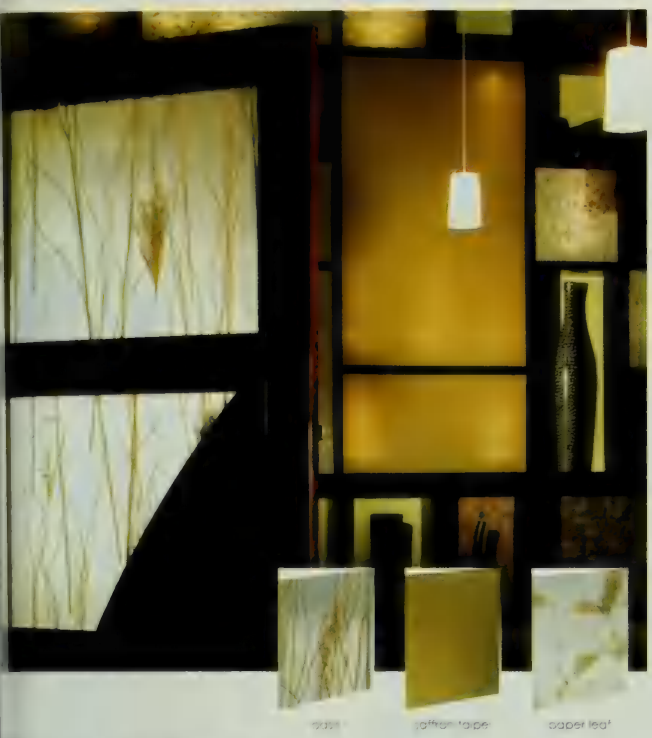
Beginning this year, Leviton's electrical and electronic product and service information is now consolidated at a single URL, having previously been divided among four Web sites. The new site is neatly organized and provides a trade-show schedule, news, and a 24/7 electronic "Ez-learn" classroom for electrical training. The only thing users will wonder about now is why it wasn't always like this.





www.boschappliances.com

The new *Green Resource Center* microsite, accessible via link from the Bosch homepage, is a valuable tool for consumers and trade visitors alike. An energy-savings calculator by energy and water cost specifications, a rebate finder by zip code, and outlines of the certification points Bosch appliances earn on applications for nine green building rating systems make these clean, fresh-looking pages worth a visit.



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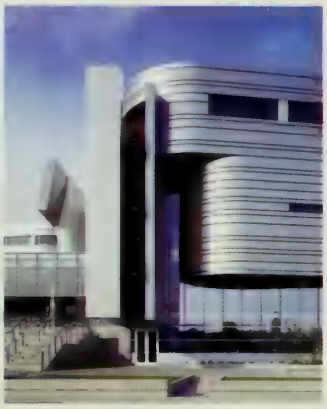
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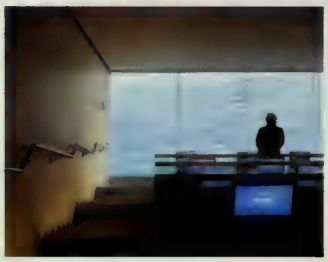
Eugene, Oregon
(page 94)
Sources
Glazing: *Viracon*
Doors: *Grandview Aluminum (sliding)*
Acoustical ceilings: *Baswaphon; Ecophon; Armstrong; Ultima Tiles*
Suspension grid: *Armstrong*
Wall coverings: *Maharam*
Paneling: *Maharam*
Special surfacing: *Richlite (countertops)*
Floors: *Dodge Regupol (resilient); Bentley Iconic (carpet); Tate (raised)*
Lighting: *Prudential, Light Control, Lumascape (interior ambient); Gotham, Delrey, Jewel (downlights); CustomCove, Hydrel (exterior)*



PROVINCETOWN MUSEUM

Provincetown, Massachusetts
(page 102)
Sources
Wood shingles: *Acella Construction*
Roofing: *Carlisle (built-up); GAF (shingles)*
Windows: *Duratherm*
Glazing: *PPG Solarban 60 (glass); Modern Glass (skylights); Kalwall (insulated-panel or plastic)*
Doors: *Duratherm (entrances); Eggers (wood)*
Hardware: *Schlage (locksets); Assa Abloy (hinges); LCN (closers); Von Duprin (exit devices); Hafele (pulls); Grass (cabinet)*
Cabinets and custom woodwork: *Chilmark Architectural Millwork*
Paints and stains: *Sherwin Williams*
Floor and wall tile: *Daltile*
Carpet: *Lees*
Lighting: *Edison Price (interior ambient); Lightolier (downlights); BK (exterior); Lutron (controls)*
Accessibility: *Garaventa*
Plumbing: *Filtrine*
Photovoltaic panels: *Schott Applied Power*





INSTITUTE OF CONTEMPORARY ART

Boston, Massachusetts
(page 108)
Sources
Curtain wall: *Wausau; Pilkington*
Rain screen: *Bendheim (glass component); Design Communications (vinyl component)*
Stucco: *Sto*
Wood decking and ceiling: *RDA; Environmental Interiors*
Glazing: *Oldcastle*
Metal paneling: *Karas*
Doors: *Oldcastle (glass entrances); Doorman (sliding); McKeon (security); Total doors (pocketed hollow metal)*
Fire grilles: *McKeon*
Ceilings: *Bergamo (scrim); Environmental Interiors (aluminum support system); Baswaphon (acoustical plaster)*
Flooring: *Robbins Sport (sprung); Lonseal*
Interior finishes: *South Shore, Maharam (upholstery)*
Theater: *High Output (rigging, curtains); MechoShade (scrim, shades, acoustic banners)*



JANELIA FARM RESEARCH CENTER, HOWARD HUGHES MEDICAL INSTITUTE

Ashburn, Virginia
(page 116)
Sources
Curtain wall: *Enclos*
Concrete: *Shockey Precast Group*
Wood: *Corev*
Roofing: *Sarnafil*
Glass: *Eckelt; St. Gobain; Rochester Insulated Glass*
Doors: *Enclos (entrances); Jefferson Millwork & Design (wood); Blasi (sliding)*
Hardware: *Schlage; Hager; LCN; Rixson; Blumcraft; CRL; Von Duprin; Rockwood; Doug Mockett & Company*
Acoustical ceilings: *USG Halcyon; Hunter Douglas; Novawall*
Suspension grid: *USG; Bosch*
Cabinets and custom woodwork: *Lab Crafters' Jefferson Millwork & Design*
Paints and stains: *Sherwin-Williams*
Wall coverings: *Knoll; Pallas; ArcCom*
Paneling: *Jefferson Millwork & Design*
Floor and wall tile: *Lorton Stone (balsatina); Daltile; Innovative Marble (porcelain tile)*
Resilient flooring: *Stonehard (epoxy rubber terrazzo)*
Carpet: *Constantine*
Raised flooring: *Haworth (TecCrete)*
Office furniture: *Halcon; dTank; Alea; Omnia*
Auditorium chairs: *Theater Solutions*
Chairs: *Dauphin; Allsteel; Tella*
Tables: *dTank; Hawthorne Galleries*
Upholstery: *Pollack; Omnia; Montis; Arflex; Brayton; David Edward*
Lighting: *Monarch Industries*
Controls: *Lutron*
Elevators: *ThyssenKrupp*

For more information on these projects, go to Projects at **archrecord.construction.com**.

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ARCHITECTURAL RECORD **CALL FOR ENTRIES**

Record Interiors 2007

The editors of ARCHITECTURAL RECORD announce this year's RECORD INTERIORS awards program. Entry is open to any architect registered in the U.S. or abroad. Of particular interest are projects that incorporate innovation in program, building technology, and use of materials. (Note: If the architect also designed the building exterior, we will not consider the project for our Interiors issue.) The entry fee is $65 per submission; please make checks or money orders payable to ARCHITECTURAL RECORD. (Sorry, we cannot accept credit cards or wire transfers.) Submissions must also include plan(s), section(s), photographs (prints or large-format transparencies, but **no** slides), a brief project description, and this official entry form—all **firmly bound** in a 9-by-12-inch folder. Ring, spiral, perfect, or book binding, as well as portfolios with attached sleeves are all acceptable options, but entries that arrive as a collection of loose pages will be disqualified. Your submission must be postmarked no later than April 30, 2007. Winning entries will be featured in RECORD INTERIORS 2007. Other submissions will be returned or scheduled for a future issue. Kindly allow 10 weeks for notification. Please be sure to enclose a self-addressed envelope with appropriate postage or return air bill.

Name of firm: _____

Address: _____

Phone: _____

Fax: _____

E-mail: _____

Contact person: _____

Name of project: _____

Location of project: _____

Type of project *(i.e. residential, restaurant, retail, etc.)*: _____

If previously (or scheduled to be) published, please include a copy of the article and state the name of the magazine or newspaper with the publication date: _____

Agreement: We will not offer this project for consideration by another national publication during the 10-week review period at ARCHITECTURAL RECORD.

Signature: _____ **Date:** _____

Print Name: _____

Submissions should be mailed to:
Linda Ransey • RECORD INTERIORS • ARCHITECTURAL RECORD
Two Penn Plaza • Ninth Floor • New York, NY 10121

This form must be included with your submission. If you have any questions, please e-mail Sarah Amelar at sarah_amelar@mcgraw-hill.com or Linda Ransey at linda_ransey@mcgraw-hill.com.



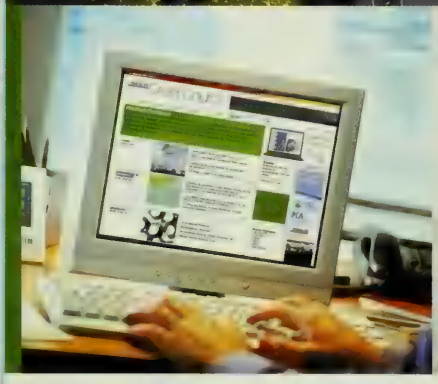
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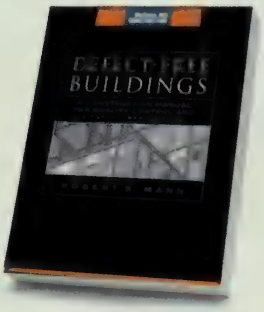
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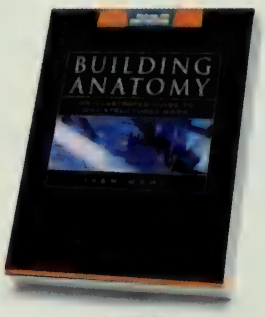
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Dates & Events

New and Upcoming Exhibitions

AIA150

AIA National 150 Best Buildings Exhibition Opening
Washington, D.C.
April 11, 2007
Visit www.aia.org

Open House: Architecture and Technology for Intelligent Living
Pasadena
April 14–July 1, 2007
This exhibition will offer glimpses into the house of the future as a place for new spatial experiences, systems of sustainability, and sensory enhancements through recent technologies and material developments. It will feature specially commissioned "intelligent houses" by 10 teams of emerging architects and designers from the United States, Europe, Australia, Asia, and Mexico. The research aspect of the design process will be highlighted and will encourage visitors to explore their own ideas about the future in a public forum. At Art Center's South Campus in Pasadena. Call 626/396-2380 or visit www.artcenter.edu.

Snapshot 007:
Current Houston Design on View
Houston
May 18–June 16, 2007
The fifth open-call exhibition showcasing architecture, urban planning, preservation, landscape architecture, interiors, furniture, and graphics by over 100 Houston architects and designers. At Lawndale Art Center. Call 713/348-4876 or visit www.rda.rice.edu.

Architecture Camp
Pittsburgh
June 25–August 17, 2007
Architecture Explorations, a series of one- and two-week camps dedicated to architectural design, construction, form, and function, and presented in collaboration with Carnegie Mellon University's School of Architecture, are available for children ages four to 13, as well as high school students. The architecture camps are held at Carnegie Mellon University's architecture studios and in the Carnegie Museum of Art's Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

Ongoing Exhibitions

AIA150

Visual Echo
New York City
Through March 10, 2007
This interactive light installation acts as a meandering ribbon of light by remembering the colors visitors wear. While also recording the rhythm and frequency of visitors, the ribbon transforms the viewer's perception of space. Using cutting-edge LED tiles, this work, by Jason Bruges Studio, demonstrates exciting new potentials, and questions how light, space, and color can interrelate in architectural space. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

The Last Four Miles
Chicago
Through March 10, 2007



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Energy costs around the world are rising. Even the slightest increase in electric prices causes the operating costs for a typical building to rise. Fortunately, with the implementation of a proper daylighting design, building owners can save up to 75% of the energy used for lighting a building. Turning off or dimming lights when not needed can also save 10% - 20% of the energy used to cool a building. Installing Bilco's Lumivent® fire vents will vent smoke, heat, and noxious gases in the event of a fire as well as allow natural lighting to illuminate warehouses, manufacturing plants, and other facilities with large expanses of unobstructed space and further reduce energy costs.


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Dates & Events

Chicago's 26-mile lakefront is world-renowned for its beauty, and unlike many urban waterfronts, Chicago's shores are mainly public park land, accessible to everyone. However, two stretches of the shoreline (totaling approximately 4 miles) on Chicago's South Side remain in private and quasi-governmental hands. This exhibition, presented in conjunction with Chicago's Friends of the Parks, unveils the plans for redeveloping this land to complete the shoreline park system from Evanston to the Indiana border. Call 312/922-3432 or visit www.architecture.org.

Some Assembly Required
Los Angeles
Through March 13, 2007
For this innovative new show, architects and home buyers unite to support a variety of modern modular dwellings that refute the commonly accepted image of "prefab" homes as cheap, cookie-cutter structures. This exhibition presents various approaches to prefab houses: those built with a kit and an instruction manual or the diminutive, one-room version. At the Pacific Design Center. For more information, call 310/657-0800 or visit www.pacificdesigncenter.com.

AIA150

Schools of the Future: U.S. Case Studies
New York City
Through March 17, 2007
What is the relationship between pedagogical visions and spaces for children? This question is pivotal to understanding good school architecture. Currently there is widespread emphasis on innovative approaches to education that reflects a more personalized conception of learning than prevailed during the 20th century. This exhibition presents a selection of significant school designs from across the U.S. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

Modernism in American Silver: 20th-Century Design
Miami Beach, Fla.
Through March 25, 2007
This show charts the stylistic design history of modern American production silver while exploring the economic and cultural factors that influenced silver design, manufacture, and marketing across more than seven decades. At the Wolfsonian-FIU. For more information, call 305/535-1001 or visit www.wolfsonian.org.

Architecture Interruptus
Columbus, Ohio
Through April 15, 2007
The Church of Saint Pierre, in Firminy, France, was designed by Le Corbusier and Jose Oubrerie, in the early 1960s. Now, after years of interruptions, Oubrerie is bringing the project to fruition. Featuring historical and contemporary photographs and drawings, the exhibition strives to bring the experience of the building to life. At the Wexner Center galleries. Call 614/292-3535 or visit www.wexarts.org.

The Home House Project: The Future of Affordable Housing
New York City
Through April 21, 2007
The project challenged artists and architects to design single-family houses using Habitat for Humanity's basic plans as a point of departure. This exhibition presents 100 innovative housing designs that explore affordable housing. At the 69th Street Gallery of New York School of Interior Design. Call 212/472-1500 or visit www.nysid.edu.

Zaha Hadid Architects and Eric Owen Moss Architects: Adventures in Kazakhstan
Los Angeles
Through April 22, 2007
This exhibition features the design entries of London-based Zaha Hadid Architects and Los Angeles–based Eric Owen Moss Architects for an invitational competition for Republic Square in



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Almaty, Kazakhstan, which consisted of a multi-use building complex on a prime lot with a five-star hotel, luxury residences, and office spaces. At SCI-Arc Library. Call 213/356-5329 or visit www.sciarc.edu.

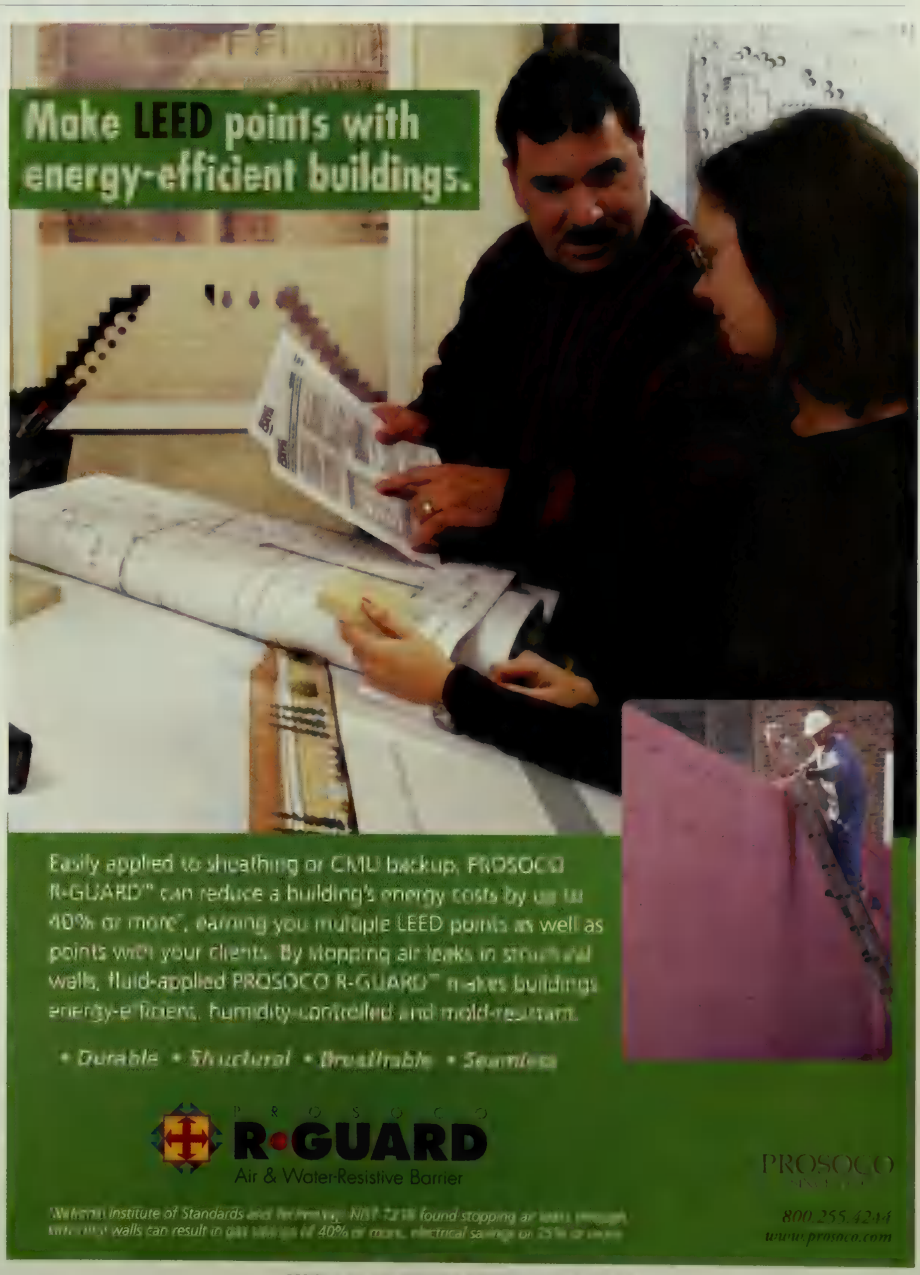
Grounded: Eisenman Architects
Los Angeles
Through April 22, 2007
An installation by world-renowned Eisenman Architects. Most of Peter Eisenman's work has sought to overcome the traditional idea of architecture as a figure on a ground by "figuring the ground": making ground a figure. Some projects carve into the ground, while others manipulate the surface to create a figured ground. This installation considers Eisenman's "groundwork" from one of the earliest projects, the Cannaregio Town Square in Venice (1978), to the Wexner Center for the Arts in Columbus, Ohio (1989) and the City of Culture of Galicia, in Santiago de Compostela, Spain (currently under construction). At SCI-Arc Gallery. Call 213/356-5329 or visit www.sciarc.edu.

Prairie Skyscraper:
Frank Lloyd Wright's Price Tower
Chicago
Through May 4, 2007
The Price Tower Arts Center in Bartlesville, Oklahoma, has the distinction of being the only fully realized skyscraper Frank Lloyd Wright ever designed. Built in 1956 and inspired by a tree, at 19 stories tall, the building transformed the flat prairie on which it was built, altering the horizon with Wright's bold architectural statement. This exhibition celebrates the 50th anniversary of this milestone in American architecture and features drawings, photographs, building components, and some of the original furnishings designed by the architect. Call 312/922-3432 or visit www.architecture.org.

AIA150
Growing Country, Growing Needs—
Federal Architecture and Art
Richmond, Va.
Through May 27, 2007
This one-time exhibition will showcase the new Richmond courthouse, a series of new U.S. border stations, and a selection of other Design Excellence Program projects that illustrate the government's goal to commission inspiring, contemporary civic architecture that reflects and promotes American ideals. At the Virginia Center for Architecture. Visit www.aia.org.

Gritty Brits: New London Architecture
Pittsburgh
Through June 3, 2007
In recent years, a new generation of architects has emerged in London, operating mostly from the postindustrial East End and intimately engaged with the city's contemporary urban condition. *Gritty Brits: New London Architecture* presents the work of six practices: Adjaye/Associates, Caruso St. John Architects, FAT [Fashion Architecture Taste], Níall McLaughlin, muf, and Sergison Bates architects. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

AIA150
NY 150+: A Timeline: Ideas, Civic
Institutions, and Futures
New York City
Through June 23, 2007
To commemorate the 150th anniversary of the founding of the American Institute of Architects in New York City, the AIA New York Chapter will feature an exhibition charting the transformation of the city and the profession from 1857 through the present and into the future. Genetic lines tracing the founding of the institute will intersect with various democratic and social movements and the architecture of New York's civic structures. Fifteen buildings and public spaces will be presented with a factual overview and commentary by architects, critics, journalists, authors, and others to illustrate the ideas that define the city's history as well as its future. A preamble will frame the social, cultural, and historical discourse, giving special emphasis to



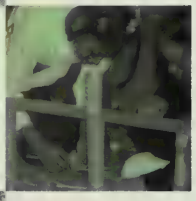
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Dates & Events

the directions of architecture in the city as imagined within a puritan pastoral democracy. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

Open House: Architecture and Technology for Intelligent Living
Los Angeles
Through July 1, 2007
This exhibition includes nearly 100 teams of emerging designers whose work focuses on technology and domestic architecture. The teams were invited to submit new designs that offer real-life solutions that incorporate the concepts of connectivity, well-being, flexibility, and sustainability. At Art Center College of Design's South Campus Wind Tunnel. Call 626/396-2380 or visit www.artcenter.edu.

The 2006 National Design Triennial: Design Life Now
New York City
Through July 29, 2007
Inaugurated in 2000, the triennial seeks out and presents the most innovative American designs from the prior three years in a variety of fields, including product design, architecture, furniture, film, graphics, new technologies, animation, science, medicine, and fashion. On view throughout the museum campus will be the work of 87 designers and firms, ranging from established design leaders such as Apple Computer, architect Santiago Calatrava, and Nike to emerging designers like Joshua Davis, Jason Miller, and David Wiseman. At the Cooper-Hewitt, National Design Museum. For more information, call 212/849-8400 or visit www.ndm.si.edu.

Lectures, Conferences, and Symposia

2007 Emerging Voices
New York City
March 1, 8, 15, and 22, 2007
The Architectural League created the annual *Emerging Voices* lecture series in 1982 to recognize and encourage architects who are beginning to achieve prominence in the profession. Now celebrating its 25th anniversary, the series focuses primarily on built work, at a variety of scales, and is structured to reflect the diversity of contemporary practice—geographically, stylistically, and ideologically. At the Scholastic Auditorium and Urban Center. For more details, call 212/753-1722 or visit www.archleague.org.

AIA150
AIA Design-Build Summit 2007
Kansas City, Mo.
March 8–9, 2007
This conference will feature keynote presentations by award-winning architects who will discuss best practices in design, using the design-build project delivery method. Tours will be arranged and sessions will focus on outstanding design, bridging, integrated firms, architecture education, leadership, K-12 schools, and sports architecture. At the Kansas City Conference Center. Call 800/242-3837 or visit www.aia.org.

AIA150
AIA Historic Resources Committee 2007 Spring Conference
Philadelphia
March 8–11, 2007
The conference, titled "Fresh Air," will feature sessions on historic preservation and provide a window into the future of architecture education and practice, which is the future of preservation. At the historic Lowes Philadelphia Hotel (in the landmark PSFS building). Call 202/785-2324, visit www.aia.org or www.acsa-arch.org.

Women in Architecture: Histories, Herstories, Reappraising the Legacy of American Architecture
Washington, D.C.
March 15, 2007
What is involved in recovering the lost histories of 20th-century architecture? What criteria can architects and historians adopt that will more equitably evaluate architecture? How can women architects create and preserve their own legacies? This forum discusses these questions, as it celebrates women's history month. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

NESEA's Building Energy 07 Conference and Trade Show
Boston
March 13–15, 2007
The Northeast Sustainable Energy Association (NSEA) Building Energy 07 includes in-depth workshops on a wide range of green building topics with leading architects, engineers, designers, product developers, builders, manufacturers, policy makers, planners, educators, utility executives, and green marketers. The trade show offers the latest in green building products and services. At Seaport World Trade Center. For additional information, visit www.buildingenergy.nesea.org.

Competitions

2007 Aurora Awards
Deadline: March 9, 2007
Builders and architects who have demonstrated excellence and creativity when designing hurricane-resistant structures are invited to submit proposals to this design competition recognizing projects in the southeastern United States. Solutia, a manufacturer of polyvinyl butyral (PVB) interlayers for impact-resistant glass, is sponsoring a new category in the competition: The Safe & Secure Award will recognize builders, designers, architects, and other home-building professionals who incorporate—and meet or exceed code requirements for—impact-resistant windows and doors for safety, and who use other design elements that minimize the effects of hurricanes and other disasters on residential structures. For more information, visit www.theauroras.com.

ACADIA International Design Competition 2007
Registration Deadline: March 15, 2007
Final Deadline: June 30, 2007
ACADIA, the Association for Computer Aided Design in Architecture, is pleased to announce its third international design competition. As in previous ACADIA competitions, this one will be held entirely online and the contestants themselves will serve as the jury. It is open to student, academic, and professional designers. The competition is designed to encourage dialogue among peers via an online forum, voting sessions, and e-mail. Visit www.acadia2007.org.

Beverly Willis Architecture Foundation Fellowship
Deadline: March 15, 2007
A new fellowship, hosted by the Library of Congress, that will help highlight the work of women architects represented in the library's collections. The Beverly Willis Architecture Foundation (BWAF) in New York City will administer the fellowship. Call 212/577-1200 or visit www.bwaf.org.

Jesse J. Wilkerson Architecture Design Competition: Design Matters: 50 Years in the Future
Deadline: March 26, 2007
This annual competition is open to all high school students in Madison County, Indiana, with the mission to design a home for the future. Submissions should push the envelope of the current housing industry. For info, Visit www.jjwadc.org.

Designing Politics: The Politics of Design
Deadline: March 31, 2007
IFG Ulm Promotion Program 2007 is inviting entries from architects, designers, and researchers for its promotional program on the topic of "Designing Politics: The Politics of Design." Award money of 50,000 euros is available, and the winning projects will be supported by mentors at IFG Ulm. Visit www.ifg-ulm.de

Grangegorman Architectural Competition
Competitions Deadline: April 2007
An international architecture competition for the development of a modern new campus, along with health and other facilities, at Grangegorman, a 30-hectare (74-acre) site close to Dublin's city center. This invitation is open to all architectural firms, joint ventures, or consortia of architects, as eligible under EU Directive 2005/36/EC or comparable registration recognized by a national government. Visit www.grangegormandevelopmentagency.ie.

Shelter Me
Deadline: June 17, 2007
In the past two years, widespread catastrophic events have called forth large-scale relief efforts throughout both urban and rural areas of the world. Shelter Me challenges designers to present a cost-effective short-term shelter that is affordable, lightweight, strong, and easily deployed. Visit www.design21sdn.com.

Project New Orleans Call for Submissions
Ongoing
Project New Orleans is seeking to compile a record of all architectural and planning proposals created for the post-Katrina rebuilding of New Orleans. Submissions are welcome, both written and graphic, from the architectural to the regional, and from all engaged in thinking about the future of the city in physical terms. Visit www.project-neworleans.org.

E-mail event and competition information two months in advance to elisabeth_broome@mcgraw-hill.com.

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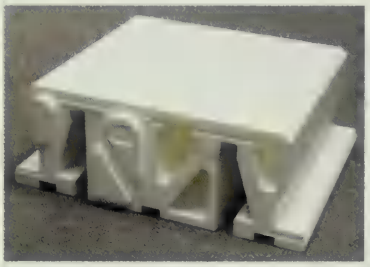


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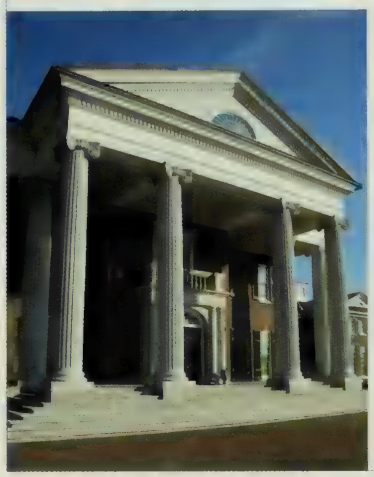
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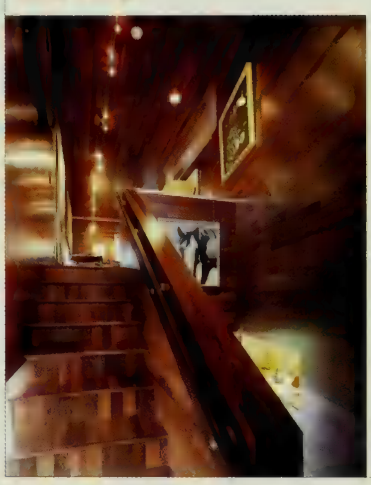
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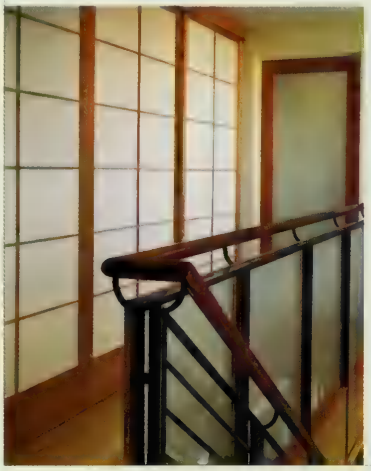
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Custom-Sized Shoji & Doors

Cherry Tree Design



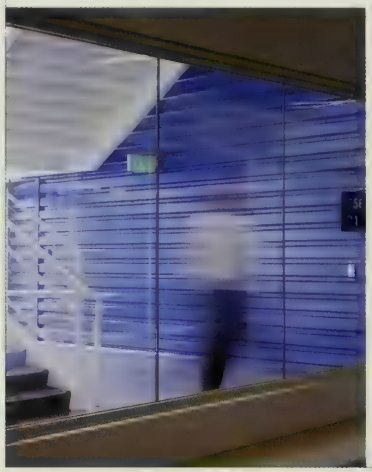
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Eliason



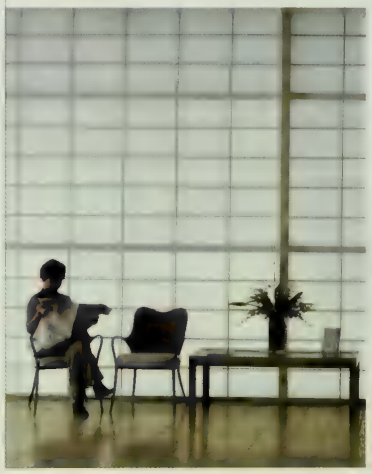
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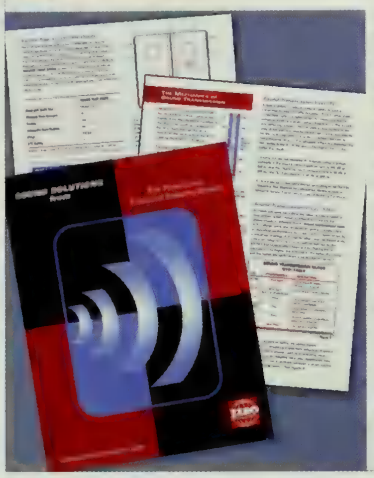
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Ornamental Plaster Ceiling Tiles

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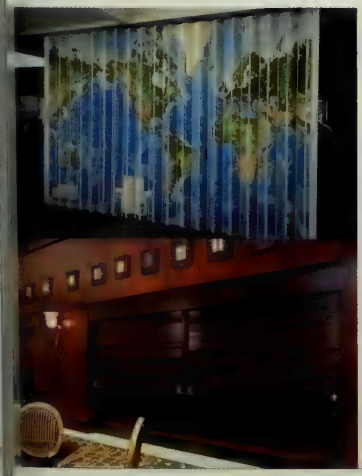
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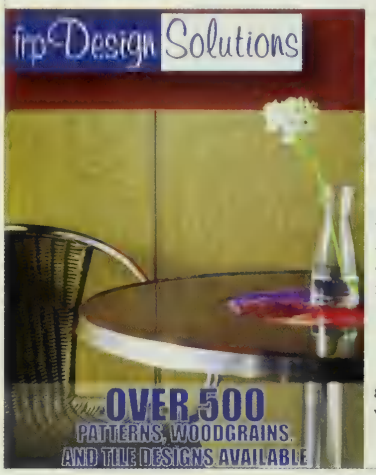
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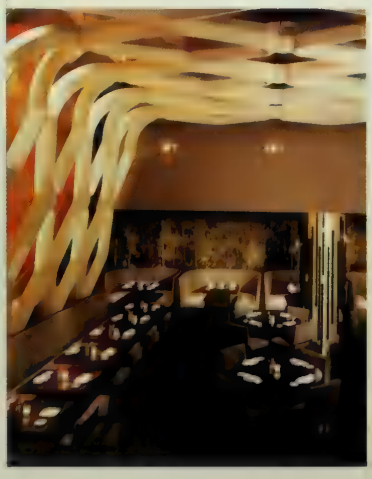
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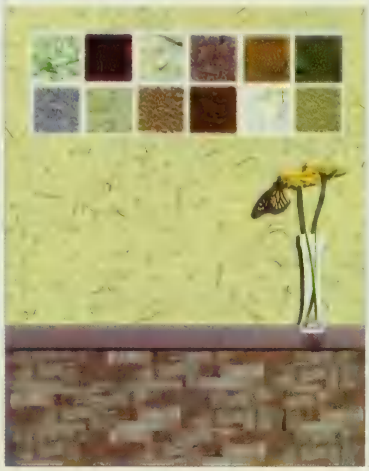
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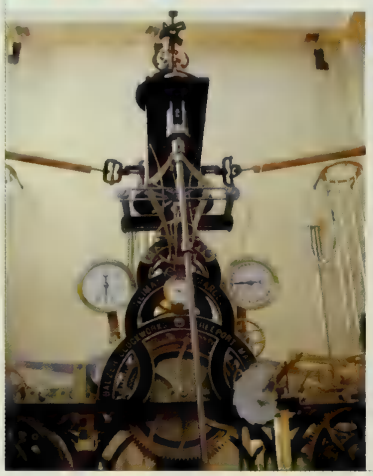
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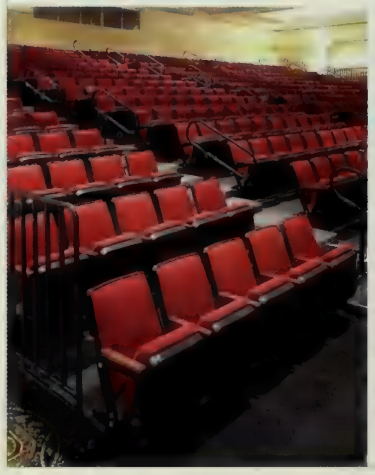
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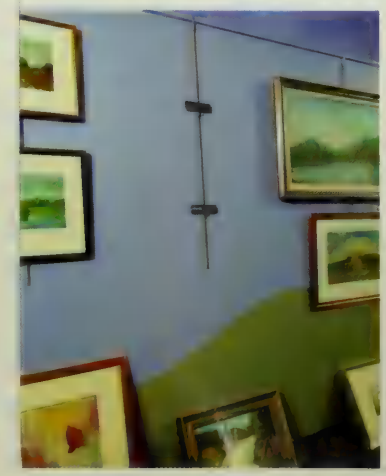
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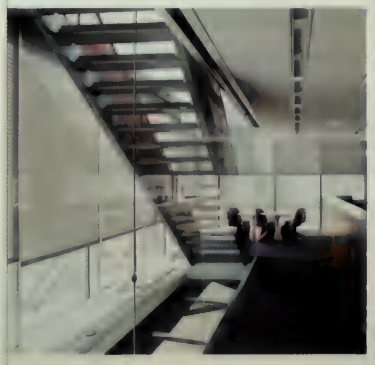
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The editors of ARCHITECTURAL RECORD are calling for entries for the 2007 KITCHEN & BATH PORTFOLIO. Entry is open to any registered architect who has recently completed an innovative kitchen and/or bath project. Of interest are projects that feature unexpected materials, address unique client needs, or are designed in a manner that allows these utilitarian spaces to be both functional and beautiful.

There is no fee. Submissions should include images (color prints, large-format transparencies, or high-res digital images on CD along with a labeled color printout), a brief project description, and a complete credit and product source list. No slides or e-mailed submissions please. We must receive all materials by Friday, April 6th. Selected entries will be featured in RECORD's July 2007 issue.



Submissions should be mailed to:
Rita Catinella Orrell
ARCHITECTURAL RECORD
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New York, NY 10121

If you have any questions, please e-mail Rita Catinella Orrell at rita_catinella@mcgraw-hill.com

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The Architect's Hand



***"Falstaff," New Orleans*, graphite, watercolor, gouache, colored pencil, saliva, 2004.**

Errol Barron renders volumes in light

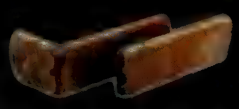
Errol Barron, FAIA, a New Orleans architect who teaches at Tulane University, has long been fascinated by the hulking, masonry-walled Falstaff Brewery in the city. Since its closing in 1978, the building has moldered on its downtown site a few blocks from the city's prison and courts. Barron noticed that its west side, which was absolutely shear, was exposed when structures were cleared around it. "As the sun sets," he says, "the wonderful play of light on this huge wall animates the building in a way that is quite moving." Barron sketched the massive pile sitting in his convertible, then created a mixed-media work 11 by 14 inches in size, using graphite, watercolor, gouache, colored pencil, and saliva. Drawing by hand, he says, is "the reverse process of design: I take things apart to understand them." The work adorns the cover of *Observation: Sketches, Paintings, and Architecture of Errol Barron* (Alexandria Museum of Art/Louisiana Endowment for the Humanities, 2005). Meanwhile, the brewery, listed on the National Register of Historic Places, may be turned into a residence and job-training facility for freed prisoners and juvenile delinquents. *Suzanne Stephens*

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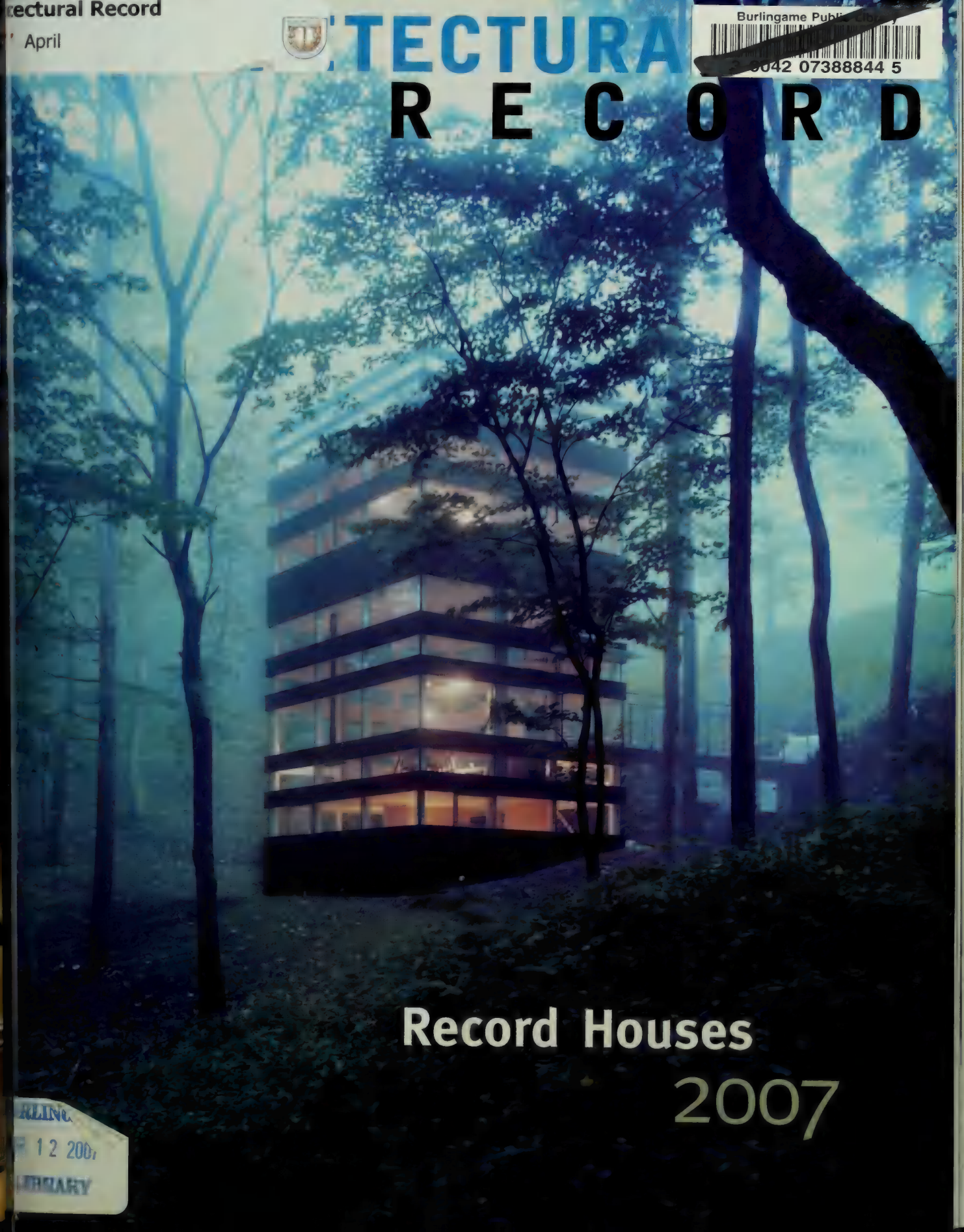
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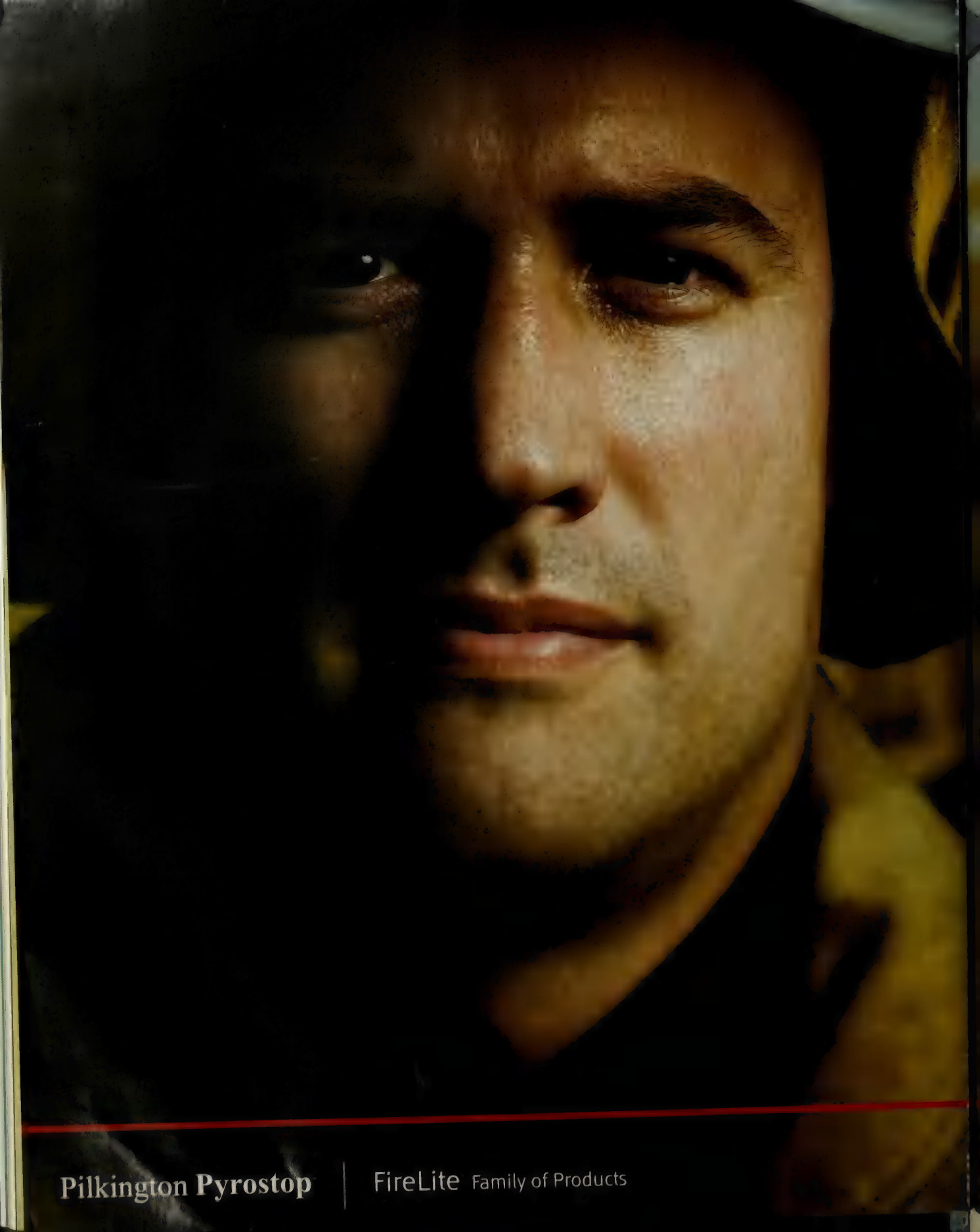
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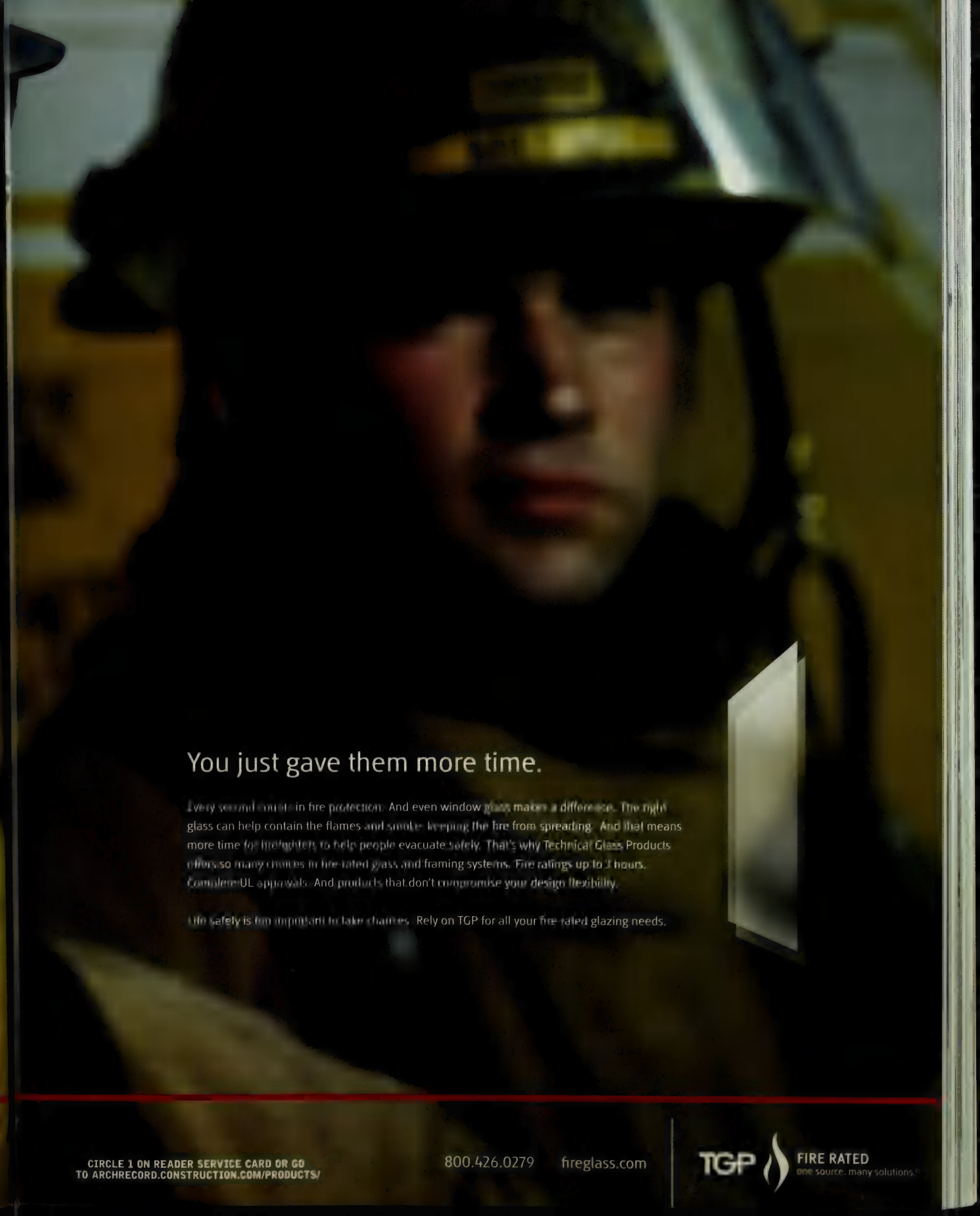
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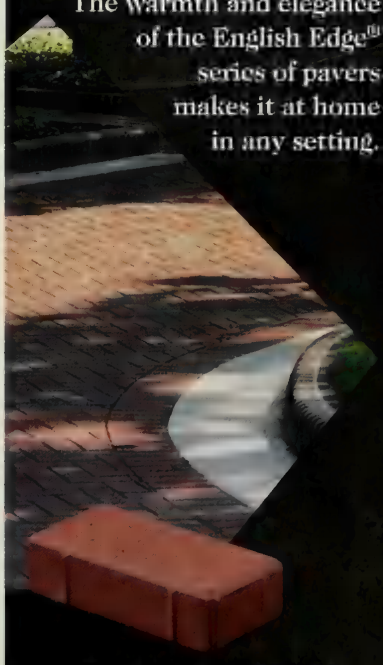

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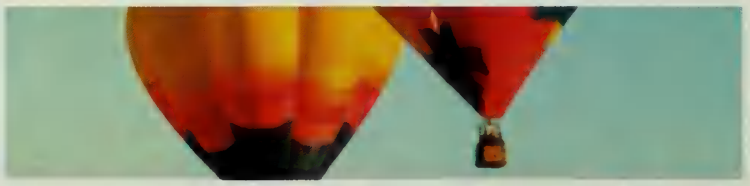
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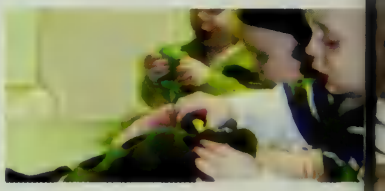




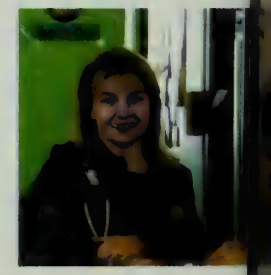














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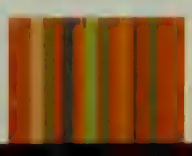
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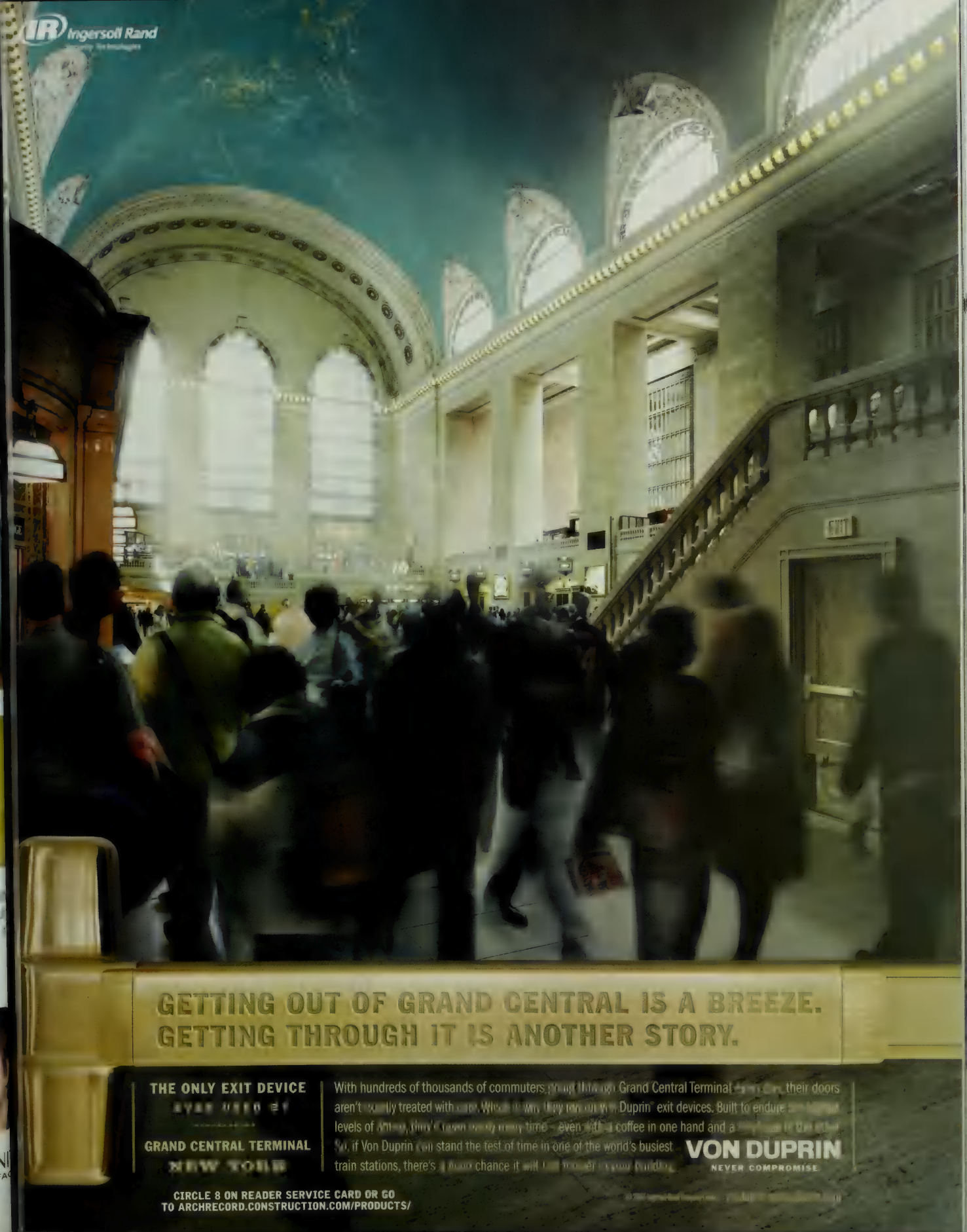


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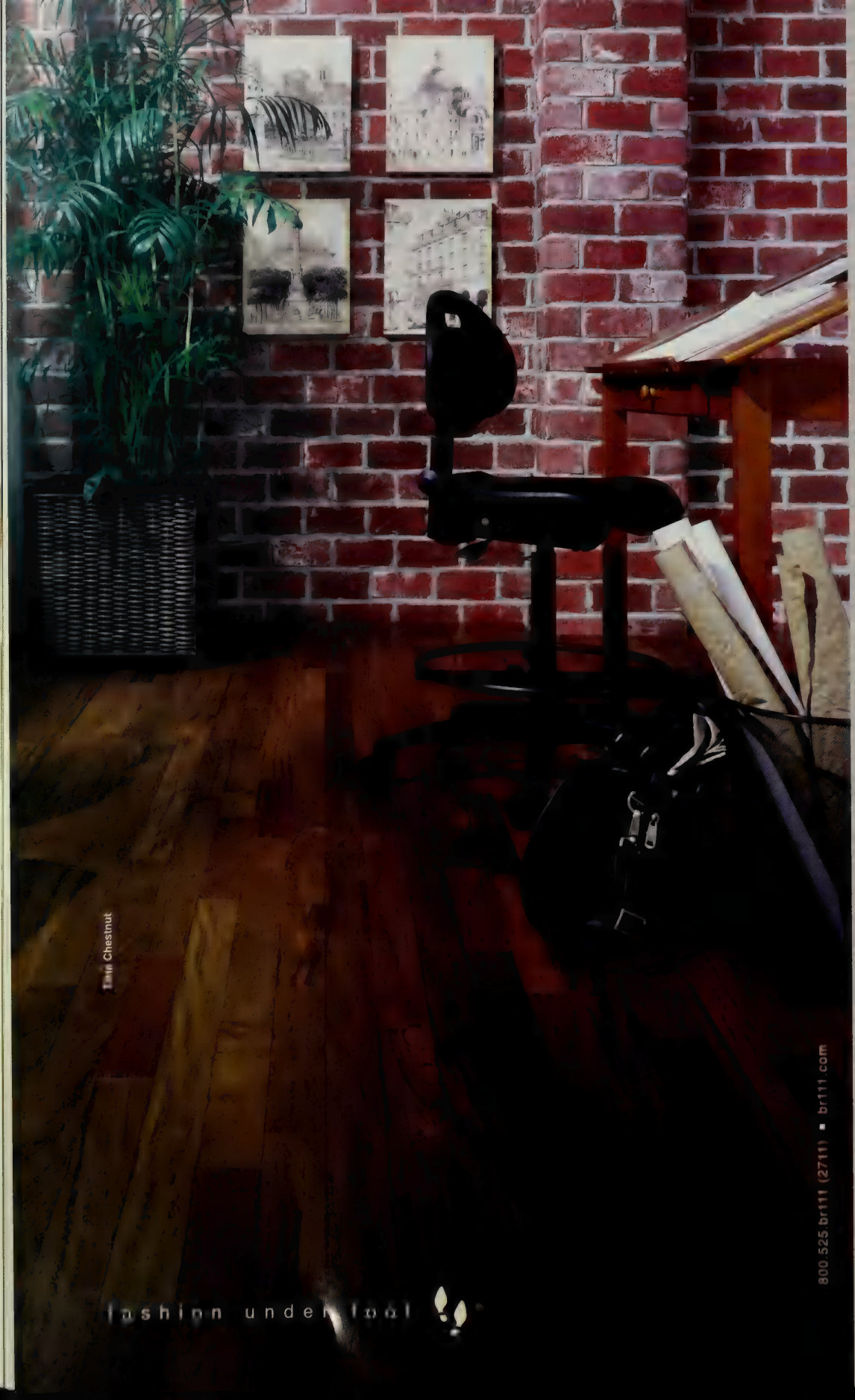


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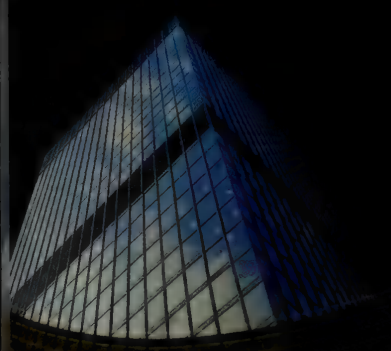
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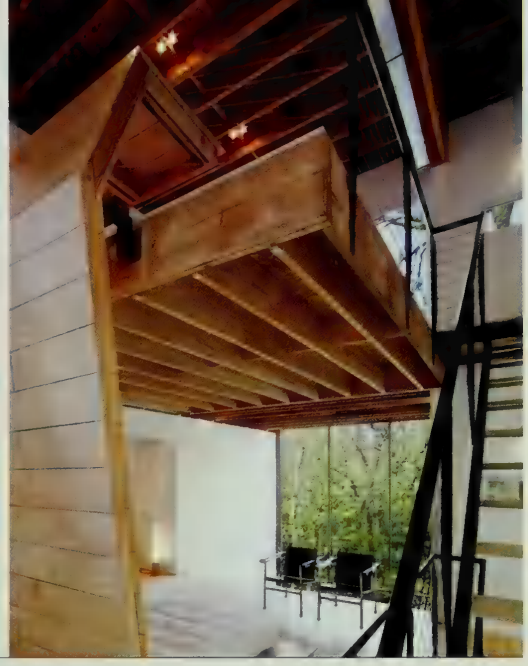
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ARCHITECTURAL RECORD

04.2007



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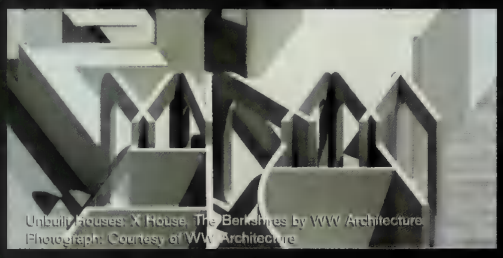
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Record Houses: James Timberlake and Stanley Kieran of KieranTimberlake Associates. Photograph: Copyright© Ed Wheeler



Unbuilt Houses: X House, The Berkshires by WW Architecture. Photograph: Courtesy of WW Architecture



House of the Month: Healdsburg House, Healdsburg, CA, by Mark Horton Architecture. Photograph: Courtesy of Mark Horton Architecture

Coming Soon: Your Content

On April 15, we will introduce an exciting, powerful suite of tools that will allow you, our readers, to contribute content to our online community. You can share photos of your projects, create a personal profile, rate projects by your peers, and comment on and recommend articles from the magazine.

Record Houses

While no two houses of the seven dwellings chosen for Record Houses this year arose from similar circumstances, each was generated from extraordinary challenges. Exclusively online, see the architects whose vision and problem-solving prowess led to the creation of each of these unique abodes, and see renderings and drawings that you won't find in the magazine's printed pages.

Web Exclusive: Unbuilt Houses

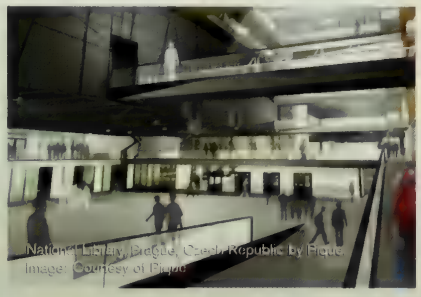
And only on the Web, view flythroughs, renderings, plans, sections, and elevations for six remarkable homes-to-be, from coast to coast and beyond.

Residential: House of the Month

Web exclusive: A home in the California wine country by Mark Horton Architecture designed logically with simple, undecorated materials.

Archrecord2

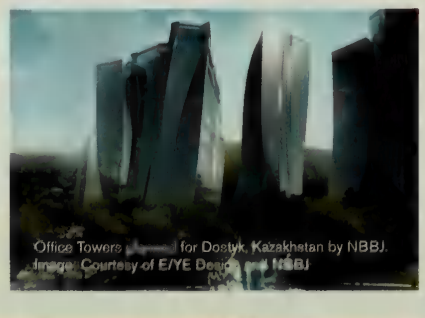
We found two firms that are finding how rewarding risking it all can be. Pique's three principals keep their vision alive from three different locations, using technology to bridge the physical gaps. View Web-exclusive images and projects by Pique and other talented individuals.



National Library, Prague, Czech Republic by Pique. Image: Courtesy of Pique

Continuing Education Opportunities

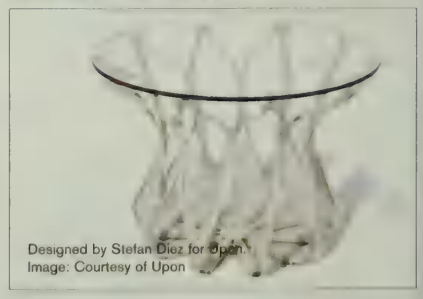
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Office Towers [illegible] for Dostyk, Kazakhstan by NBBJ. Image: Courtesy of E/YE Design and NBBJ

Products: Trade Show Review

Web exclusive: View images and listen to audio interviews with some of the talented designers we met as we navigated the recently revamped Koelnmesse fairgrounds at the Cologne Furniture Fair, an annual extravaganza of design with 1,300 participating companies from 57 countries attended by 115,000 visitors.



Designed by Stefan Diez for Upon. Image: Courtesy of Upon

Blogs & Forums

OUR SITE NOW FEATURES some of the top architecture blogs, with multiple posts added throughout the day on projects, products and practice matters. And our forums give you the chance to express your views on key issues and controversial questions.

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Here's Your Chance

Editorial

By Robert Ivy, FAIA

We have talked at you for 116 years. Every month, the members of the ARCHITECTURAL RECORD *audience receive our curatorial choices—the architectural projects, the types of buildings and plans, the interiors, the houses, the lighting, the technical questions, and the cultural happenings, that we, the editorial staff, choose for you. Consistently, in correspondence and at live events, we listen as best we can, then attempt simultaneously to stimulate and inform. Each month, we try to bring you the latest, the best, the most provocative, as well as the highest examples of architectural work, domestically and around the world. You regularly respond to our choices, usually positively.*

Sometimes, we editors are accused of being too "New York–centric," or too "bicoastal" (all California and the East Coast), or favoring "starchitecture"—that is, purveying the work of a few, select names that constantly reappear in the pages of print media and online. You have told us, "Our clients would never let us get away with the projects you show," or, "The kind of work you're publishing doesn't match the kind of work we do in the Midwest." We've heard that, too.

If any of those arguments sound remotely familiar, if you hail from the Midwest or the Deep South and don't see enough of your own kind of work in these pages, listen up! Here's your chance. On April 15, ARCHITECTURAL RECORD *is launching a bold new initiative to reach out to our entire community, allowing you, the reader, to participate more actively in the content of our publication. As promised in an earlier editorial, McGraw-Hill Construction and* ARCHITECTURAL RECORD *have invested in powerful new community-building digital tools allowing you to help steer the ship. Here's what we are offering.*

As you may be aware, we already provide forums online centered on a few key topics, including sustainability, registration, and licensure. After a simple sign-on, you're in the forum and can submit your own ideas; it's easy to do. At mid-month, the forums have been augmented by a suite of tools allowing you a range of options.

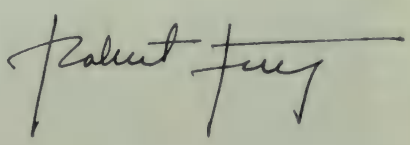
For the first time, we have constructed photo and drawing galleries that allow you to post your own content to our Web site. Gathered around five critical areas of interest, these galleries permit you to share your best work, wherever it occurs, with your peers throughout the world. The requirements to post include your acknowledgment that you control (or own) the photo rights to anything published. That fundamental condition applies to all publishing, electronic or print.

And if you don't like the type of architecture we, the editors, have chosen, you can vote and tell the world. We are instituting a rating system that allows you to evaluate every significant project that appears online and in print by a simple-to-use tabulation system: Vote and immediately see the results. You can even comment on the projects that you love (or hate).

If you find a particular article in any issue helpful, such as the one on the technology of building information modeling that appears in this issue, you can recommend that column to others by casting a vote. We have also inaugurated blogs—staff-derived experiences and opinions, as well as blogs aggregated from outside sources—that broaden the kind of coverage we provide and allow us all to comment on what we've just seen or experienced. We would be pleased to consider blogs or bloggers that you value, permitting RECORD *to become more immediate and more relevant to your world.*

In the past, when we've asked whether or not you sent in your own projects for consideration for publication, most often you've answered, "No." It was too hard to do, or too expensive, you said. As of April 15, that excuse no longer flies. We will use the galleries as sources, examining them for the best examples of domestic work, and including a select few in print and in expanded Web coverage through an informal competition. All you have to do is sign into the system and post to the galleries.

From now on, you cannot hide behind an excuse. For your best ideas, sign up and post. Vote for what you like. Send in your work. You asked, and we're providing the tools. Now put up, or—oh well, you know.



Letters

Strong notes

Thank you for a really strong March issue, with many relevant projects. There's an especially nice piece on Diller Scofidio + Renfro's Institute of Contemporary Art [page 108], with a clever last sentence and all—finally I have a reason to go to Boston again! It is too bad, however, that the lenticular film for the museum's Founders' Gallery was nixed. Though I understand the impulse to capture the big one-liner view, this incident reflects the difficulty architects face when trying to address the more nuanced conditions of our complex contemporary life.

Also in the same issue, Machado and Silvetti's Provincetown Art Association and Museum [page 102] reminds me of how good that practice is when it comes to putting contemporary additions onto traditional buildings.

—Li Wen, AIA
Gensler
Los Angeles

The next generation

After reading the articles in Record News on diversity ["Architecture profession slowly gains diversity" and "Design symposia focus on African-Americans," March 2007, page 34], I would suggest an alternate view and offer a challenge to our profession regarding where the "blame," if any, lies in the slow growth and development of a more significant representation of minorities in our profession.

I believe it is not the failure of the schools to attract minority students. Where there is no group awareness of the opportunity, there can be little development of a cohort to attract. It is our challenge as a profession to open the eyes of these students and engage the communities from which they will emerge. We need to put into play a plan that includes career days and other awareness-raising events and programs, to create the students who will be the next generation of architects.

—Jud Kline, AIA
Cleveland

The "A" list

I am not surprised by the fact that the Empire State Building was voted number one on America's List of Favorite Buildings [Record News, "AIA releases results from its 'Top 150' buildings survey," March 2007, page 43]. Its stately grace and reserved majesty have been the iconic symbol of New York for as long as anyone can recall.

More important—and in response to the committee wondering why more Modern architecture was not on the list—the answer is as simple as the Empire State Building itself: The building appeals to the common person. While Modern design may have numerous salient points in the architectural world, most of it is viewed by nonpractitioners as odd and unappealing. Hence, when you compare a structure such as the above to, say, Zaha Hadid's Rosenthal Center for Contemporary Art in Cincinnati [RECORD, August 2003, page 86], whose ominous, precast-concrete jumble of geometric shapes look more like a foundry form than a building, it should be of little wonder why it's not on the list, and the Empire State Building is.

—Clifford Archer, AIA
Levittown, N.Y.

Girl power

As life would have it, I started working for a general contractor 12 years ago, as a receptionist, and now I am the estimator for the company, and they still let me in even though they know I have a biology degree. Working in contracting, a profession for men who are engineers by education, in a typical southern town, is, as you would expect, not very easy for a woman. But the times they are a changin'. I was so pleased to read your feature, "Not Only Zaha" [December 2006, page 58]. I knew it was only a matter of time before the impact women are having on the industry would be more widely recognized. The increase in the number of women as lead architects is amazing. And I notice more and more younger women who today are backing up the lead architects and who will some day be stamping their own names on drawings. I hope to make my own contribution backing these women and helping them change the world, building one project at a time.

—Christina McAlhaney
Brantley Construction Company
Charleston, S.C.

Contextual correction

Greetings from Tokyo. On behalf of Fumihiko Maki, we wanted to point out an error in the *FOBA: Buildings* book review published in your February issue [page 48]. The review states, "Fumihiko Maki, a Kyoto native who has lived in Tokyo for many years, addressed the city in his projects there by ignoring it, creating minimal, universal buildings."

In fact, Mr. Maki was born and raised in Tokyo, and he only has one major project in Kyoto—the National Museum of Modern Art. "Minimal" and "universal" as descriptions may or may not be appropriate, depending on one's point of view, but I think you would agree that Mr. Maki does not typically adopt the stance of "ignoring" the context in which he builds, particularly in a sensitive environment such as Kyoto.

—Michel van Ackere, AIA
Maki and Associates
Tokyo

Taking the stand

I am a long-time reader, and a first-time writer, inspired to respond to your coverage of Morphosis's U.S. Courthouse in Oregon [March 2007, page 94]. This building is a fine example of wasted taxpayer money. I grow tired of seeing architects trying to create design statements with each new project. My first impression was "what is it"? It does not resemble in any way any courthouse I have ever seen. That the project came in at over $288 a square foot, the only award I can see this building getting would be a "golden fleece" award for all the unnecessary elements of design that Thom Mayne incorporated in the name of "making a statement."

—Michael Frank, AIA
Orlando

Corrections

A February 2007 story on lighting designer Abhay Wadhwa [page 160] had incorrect information on one of Wadhwa's projects. The client name is Ivan Pavicic 3W13, the architect is Avi Oster Architecture, and the project includes seven condominium floors, not four. A March news item about Dion Neutra selling his firm's last commercial building [page 40] misstated the square footage, which is 4,800, and misspelled the name of his firm's Maslon House. A March technology story on Haworth's Zody chair [page 170] misspelled the manufacturer's name. Because of a late change of venue for the GreenBuild Expo (held November 7–9), it should be noted that the correct location is Chicago, not Los Angeles, as mentioned in the March issue's Product section [page 193]. A drawing featured in RECORD's Web-site house ad [page 18] should have been identified as Zero Energy Home, by Zoka Zola, not a photograph of the ICA.

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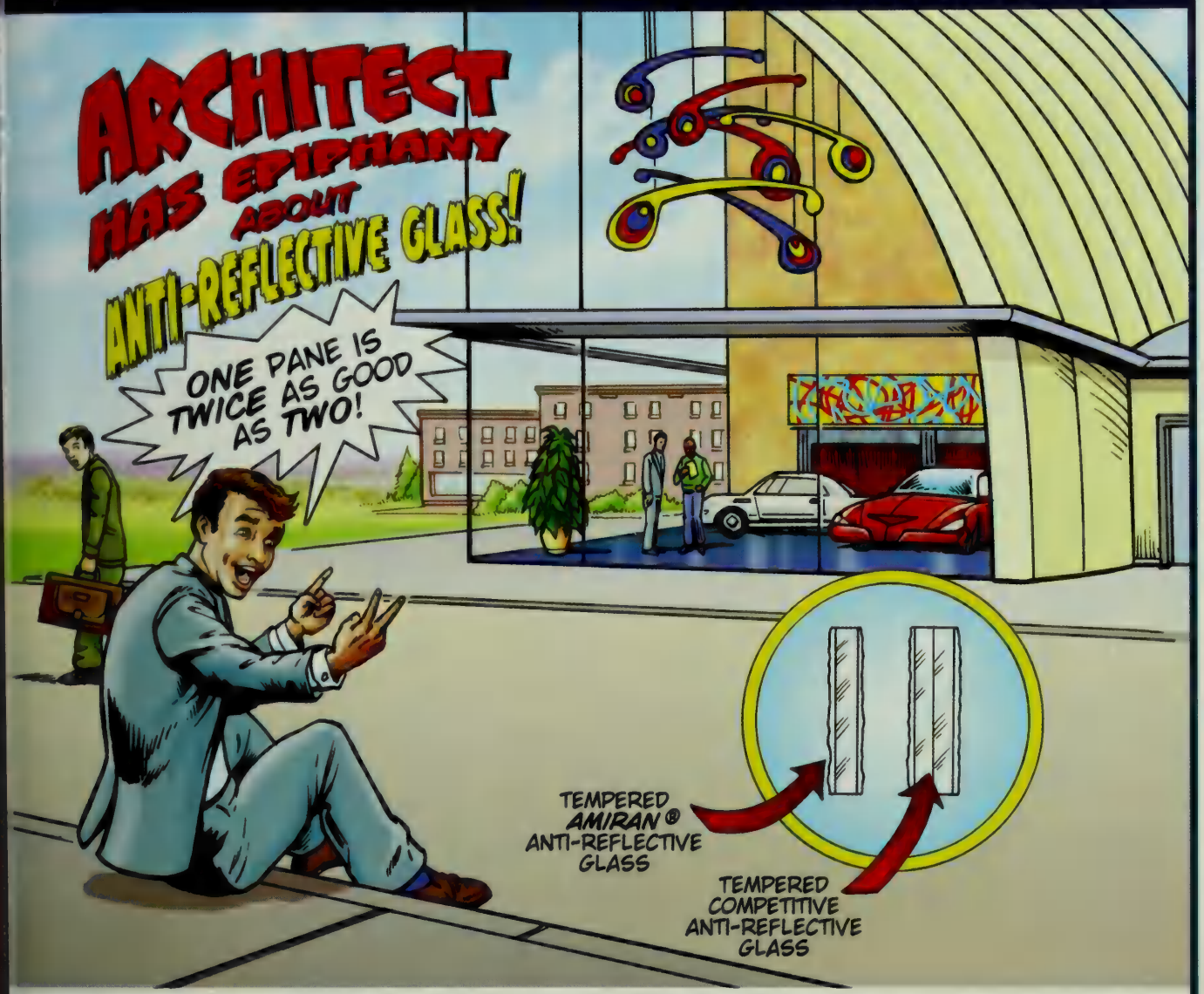
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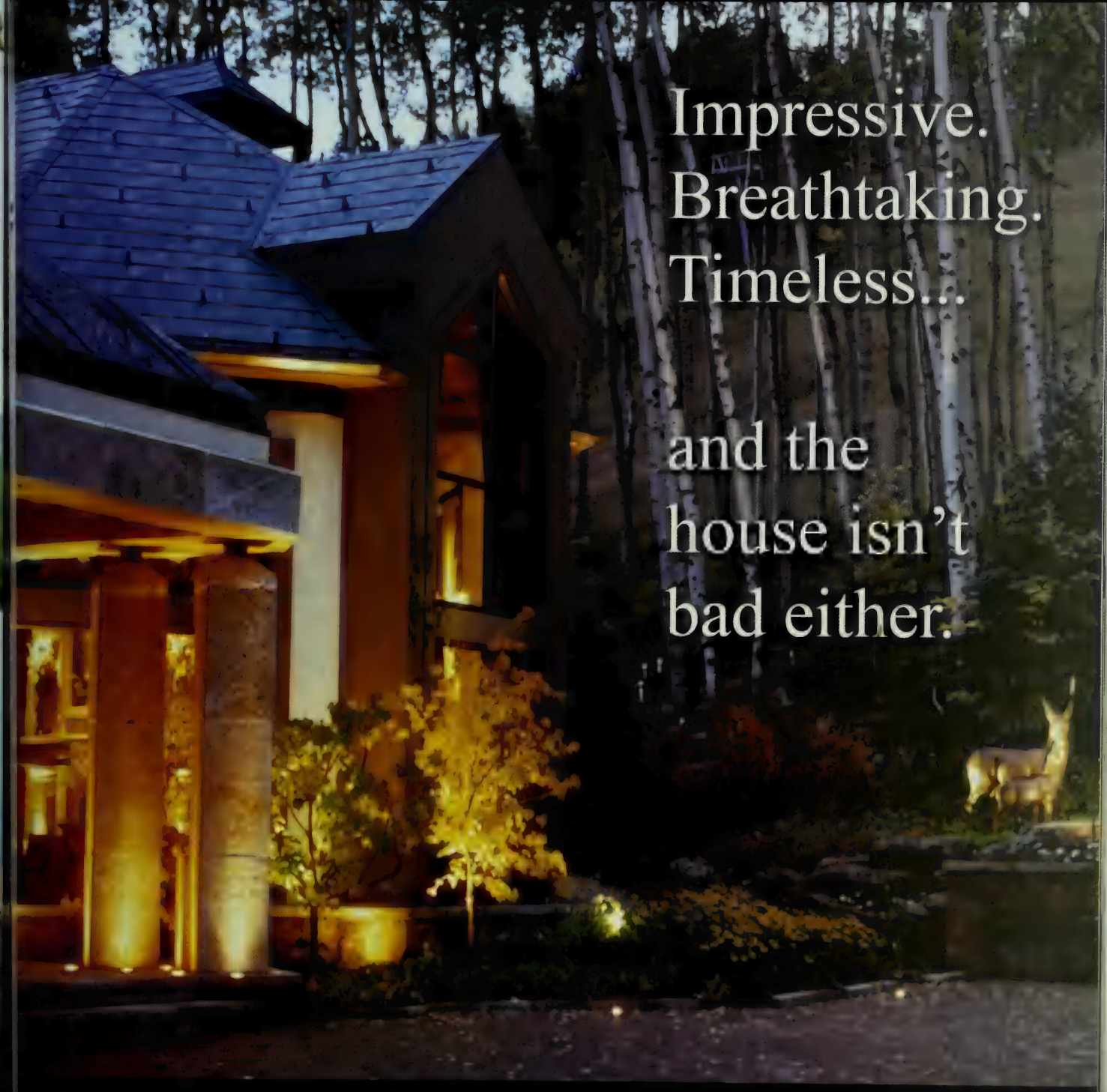
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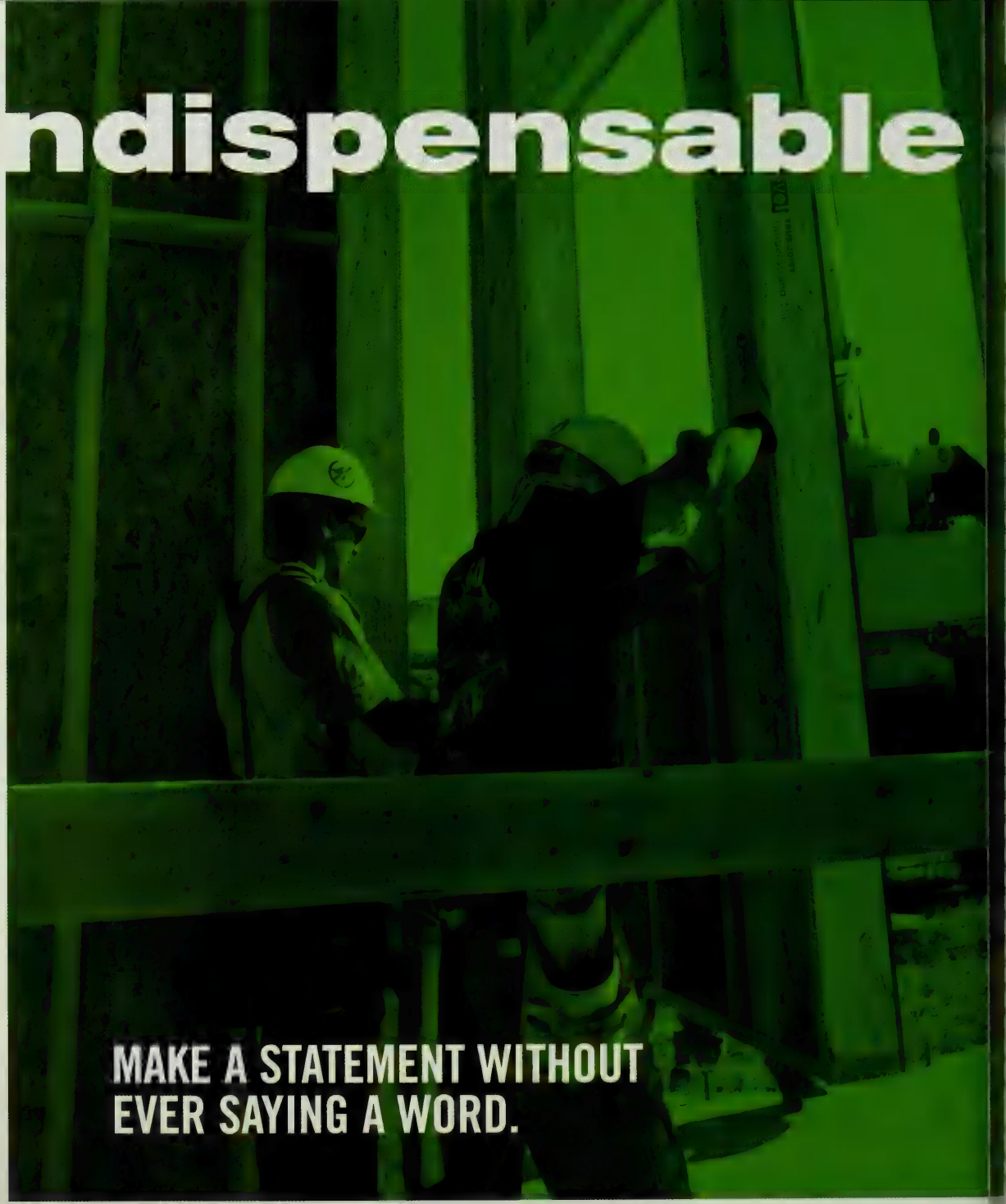
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Record News

Highlights

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p.40 **Green housing rises in New Orleans**
p.43 **Bush tackles climate change**
p.46 **Herzog and de Meuron scale down**

Richard Rogers wins the 2007 Pritzker Architecture Prize

Richard Rogers is this year's winner of the Pritzker Architecture Prize, the profession's highest honor. The 73-year-old architect heads the Richard Rogers Partnership, which he established in London 30 years ago. Jurors praised his work as representing "defining moments in the history of contemporary architecture."

One of Rogers's best-known works is also among his earliest: the Centre Georges Pompidou, in Paris, of 1977, designed with Renzo Piano. Rogers and Piano, who were then in partnership together, won the commission after an international competition in 1971. As Pritzker jurors observed, the Pompidou's striking appearance—with a facade dominated by HVAC conduits, escalators, and other service elements typically relegated to a building's core—"revolutionized museums, transforming what had once been elite monuments into popular places of social and cultural exchange." Another early work, the Lloyd's of London office tower, completed in 1986, displayed a similar inside-out sensibility and cemented Rogers's reputation for expressionist architecture.

Born in Florence, Italy, Rogers trained at the Architectural Association in London and earned his master's degree in architecture from Yale University. There his path crossed with a number of other design giants: Paul Rudolph, who headed the architecture school; James Sterling, who taught Rogers; and Norman Foster, a fellow student with whom he opened a practice after the pair graduated and returned to England.

Although Rogers's recent works, such as London's Millennium Dome, in 2000, and Terminal 4 at the Madrid Barajas Airport, which opened in 2005 [RECORD, October 2005, page 150], continue to display his flair for showcasing the purely functional elements of a building, he has increasingly concerned himself with larger scales—both urban and global. "Cities are where life is most precarious; they are also where we have the greatest tangible opportunity for improvement, intervention, and change," he said in a 1995 lecture.



Buildings that launched the career of Richard Rogers include the Centre Georges Pompidou, designed with Renzo Piano, of 1977 (top right), and Lloyd's of London (center), finished in 1986. New works include the proposed Leadenhall Building (center right); the Millennium Dome (above right), finished in 2000; and 2005's National Assembly for Wales (above left).

In addition to serving as the mayor of London's chief adviser for architecture and urbanism, Rogers chaired the United Kingdom's Urban Task Force. Established in 1998, this group studied the causes of urban decline and outlined the groundwork for creating a future urban renaissance. Describing this vision, Rogers observed that tomorrow's cities "will no longer be zoned as today in isolated, one-activity ghettos; rather, they will resemble the more richly layered cities of the past. Living, work, shopping, learning, and leisure will overlap and be housed in continuous, varied, and changing structures."

Rogers, made a British lord in 1996, is the fourth U.K.-based architect to win the Pritzker in its 28-year history; the other three were Zaha Hadid, Foster, and Sterling. He will receive the honor, which comes with a $100,000 grant, at a ceremony in London this June. *James Murdock*

Freedom Tower questioned amid rising costs

As work on the Freedom Tower's foundations progresses, with an eye to vertical construction beginning next year, observers are expressing doubts over the project's total price tag, which seems poised to rise at a faster rate than the building itself.

In late February, the Port Authority of New York and New Jersey officially authorized construction of the Skidmore, Owings & Merrill–designed building, which forms the symbolic cornerstone of the rebuilt World Trade Center complex. The agency also approved the awarding of contracts worth $500 million for continuing construction on the Freedom Tower's foundations, which began last year.

A press release stated that the contract amounts fall "within planned-for contingencies common to projects of this scale," a roughly 4 percent margin. The building's total price tag is currently set at $2.88 billion. But many observers believe that the final number will rise far higher.

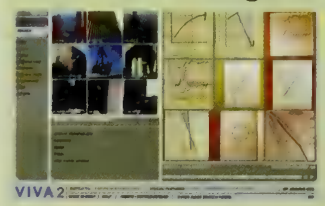
Barry LePatner, Hon. AIA, a real estate attorney and construction-cost expert, contends that the Freedom Tower's initial bid numbers were virtually meaningless—unless construction companies agree to sign fixed-cost contracts, which seems unlikely. The problem, he explains, is that contractors often lowball their estimates to win projects and then file change orders and add other fees to make up the difference later.

Prominent real estate developers Douglas Durst and Anthony Malkin have also criticized the project's finances. Taking out advertisements in major New York City newspapers, they contended that Lower Manhattan has an oversupply of office space—and that the Freedom Tower is struggling to attract commercial tenants aside from government agencies.

New York's new governor, Eliot Spitzer, pledged his support for the Freedom Tower's construction after taking office this winter, a critical if somewhat symbolic step. Even so, Spitzer as well as New Jersey governor Jon Corzine and New York City mayor Michael Bloomberg have said that they are open to selling it to a private developer, which could presumably redesign it. The foundations under construction now, they note, can be used for buildings other than the Freedom Tower.

Other projects at Ground Zero face a similarly uncertain fate. The Port Authority admitted this winter that rising labor and materials costs have caused the PATH station, designed by Santiago Calatrava, to exceed its $2.2 billion budget by nearly $1.2 billion. The architect and agency are looking for ways to trim costs. This could mean a redesign, although Calatrava has said he is committed to preserving his design's signature elements. For more on this story, visit www.archrecord.construction.com. *Kevin Lerner*

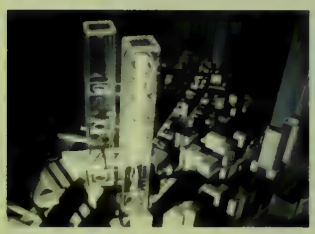
Archive offers engineer's view of Twin Towers



The Skyscraper Museum is making more than 500 images relating to the design and construction of the original World Trade Center in Manhattan available through its VIVA2 online archive. The photos and drawings were donated by the Twin Towers' engineer, Leslie E. Robertson Associates.

"In the absence of the buildings, they are a unique record that allows architects and engineers to study the structures in detail," says Carol Willis, the museum's founder and director. "Most of the slides were taken by Les himself over the course of construction with his special access to the site and, obviously, with his special eye and perspective."

In addition to the World Trade Center materials, VIVA2 also presents images and drawings that relate to the Empire State Building. Willis says that the museum is now collecting materials to document development of the planned Freedom Tower, but adding them to the archive will require new funds. VIVA2 was created by a



grant from the Institute of Museum and Library Services. It can be accessed through the museum's Web site, www.skyscraper.org. *J.M.*

Search begins for new Architect of Capitol

As crews push to finish the long-overdue Capitol Visitors Center project in Washington, D.C., Congress is stepping up the search for candidates for the recently vacated post of Architect of the Capitol. The position oversees construction at the Capitol, Library of Congress, and House and Senate offices. Alan Hantman, FAIA, retired February 4 after his 10-year term ended. He did not seek reappointment.

In recent years, Hantman's office came under fire from Congress for lengthy delays and cost escalation on the visitors center. When the project began in 2002, estimates suggested it could be completed by January 2005 for $265 million. The latest estimate projected that costs could top $600 million, with an opening date in early 2008.

The American Institute of Architects (AIA) prepared a list of four potential candidates for the job last fall, which it then submitted to the Senate Rules Committee. The AIA has been part of the search process before, recommending both Hantman and his predecessor, George White, FAIA. President-elect Marshall E. Purnell, FAIA, who is helping with the search now, refuses to name the candidates, but he confirms that Congress has hired a search firm.

In helping with the hiring process, the AIA has attempted to deflect congressional criticism and suggestions that the next Architect of the Capitol should have more managerial experience. "To me, that doesn't exclude architects," Purnell says. "We need a licensed, registered architect. That will guarantee a certain level of quality." He adds that the AIA considered architects with facilities management experience. Prior to his appointment, Hantman was vice president of facilities planning and architecture for Rockefeller Center in New York City.

It took more than a year to select and approve Hantman, and observers expect the current hiring process will take nearly as long. For now, deputy architect and chief operating officer Stephen Ayers is filling the position temporarily. Ayers has worked in the office for 10 years.

Purnell says the search firm is expected to release its list of names by early summer. Three candidates eventually will be recommended to President Bush. His pick then requires Senate confirmation.

"We just hope this doesn't turn political," Purnell says. "It's a Democratic Congress and a Republican President, so you never know. We're not concerned about what party the candidate is in. We just want someone who is qualified." *Bruce Buckley*

[This story first ran in *Engineering News Record*, RECORD's sister publication.]

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Governors Island development moves forward

It's full steam ahead for Governors Island, a 172-acre landmass located off Manhattan's southern tip that the Coast Guard turned over to New York City in 2003. Although the Governor's Island Preservation and Education Corporation (GIPEC) decided against naming a single developer for preservation and redevelopment of the island last year, the organization is pushing forward on other fronts.

Leslie Koch, president of GIPEC, says the corporation had originally been looking for developers and "whole-island" solutions, but "it became clear that none of the developers were proposing that they would assume any of the major financial burdens for infrastructure and open space." She adds that the corporation soured on the idea of a master developer altogether.

At the same time that GIPEC announced there would be no winner of that initial RFP, it introduced a design competition for open space that is hoped will jump-start other development. The new competition asked designers to consider three components: a 25-to-40-acre park; a 2-mile waterfront promenade around the island's perimeter; and a district of historic buildings.

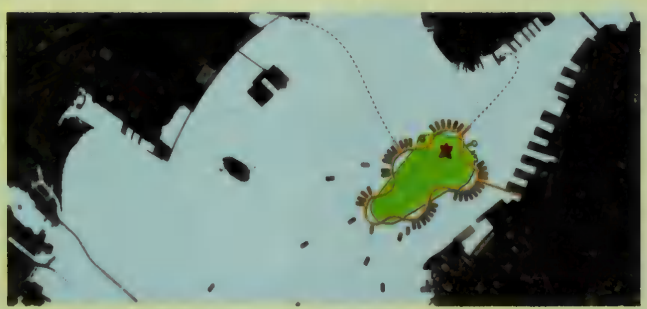
A Request for Qualifications generated submissions from 29 teams. GIPEC announced five finalists earlier this year: Field Operations and WilkinsonEyre; Hargreaves Associates and Michael Maltzan; REX and Michel Desvigne; West 8, Rogers Marvel, and Diller Scofidio + Renfro; and WRT, Weiss/Manfredi, and Urban Strategies. GIPEC will unveil their submissions in a public forum this spring.

"We're choosing a team, not a design," Koch says, adding that a final plan for the public spaces will come later. "We're hopeful that between 2009 and 2010 we'll have shovels in the ground." GIPEC is also hopeful that these efforts will spark interest in further development activity. Koch observes, "Investments in extraordinary public open space is the way to bring the island back to life so that we have tenants in our historic buildings and the possibilities of partners for new construction."

One of these partners might be the New York Harbor School, a high school that uses maritime subjects as a way to deepen education and prepare students for college and water-related careers. The school is presently located in Brooklyn's landlocked Bushwick neighborhood. GIPEC is negotiating an agreement that would make it the island's first official tenant, in September 2009.

A feasibility study is also under way to determine the potential cost and complications of an aerial gondola system designed by Santiago Calatrava, FAIA, that would link Governors Island to Manhattan and Brooklyn. When renderings of the gondola were released last year, it was presented as a speculative project. But positive public response prompted officials to take the proposal more seriously. Koch says, "Rather than just having it float out there, we wanted to answer some questions about whether it could be built." *Tim McKeough*

Is another world's fair in New York's future?



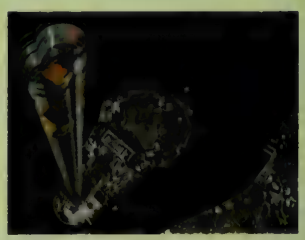


BOORA designed pavilions housed on barges docked at the island (above two). Craig Konyk's Mile High Tower, with views as far as Philadelphia (right).

As the Governors Island Preservation and Education Corporation (GIPEC) mulls over the finalists in its competition to encourage development of this 172-acre harbor island, it may have some additional suggestions to consider. Fred Bernstein, a journalist and former lawyer, has recruited seven architects to imagine schemes for hosting the 2020 World Expo there.

Bernstein believes that in addition to raising the island's profile, hosting an Expo would help GIPEC put into place infrastructure necessary for future development. New York City has a history of hosting these events to accomplish urban change. For the 1939–40 World's Fair, Robert Moses transformed 1,255 acres of Queens marshland and landfill. The site hosted another fair in 1964–65, which resulted in the creation of Flushing Meadow Corona Park. World's fairs, since rebranded as Expos, continue to provide opportunities for reimagining urban spaces. Shanghai, for instance, expects to unveil its much-anticipated eco-city prototype at the 2010 Expo [RECORD, March 2007, page 162].

For the 2020 event, Bernstein suggests the theme "Connections," a reference to New York's history as a multicultural paragon. He invited young architects, as well as those old enough to remember the 1964 fair, to contribute ideas that he will use in strengthening his proposal. Chad Oppenheim and BOORA both proposed that pavilions representing different nations be situated on barges docked at the island. The Expo would begin and end with a grand procession of the pavilions through the city's waterways. Other architects referenced the iconography of past fairs. Thinking of Paris's Eiffel Tower, Craig Konyk envisioned a "Mile High Tower" with a viewing platform at a height of 5,280 feet, providing 100-mile views. Ali Tayar conceived a structure that reinvents the New York State Pavilion, which Philip Johnson designed for the 1964–65 fair. Alexander Gorlin, Frederic Schwartz, and Markus Dochanstchi, of studio MDA, also contributed designs.



To build support for these ideas, Bernstein has formed a nonprofit called "21st Century New York" and is gathering a committee to lobby the mayor as well as New York's governor and congressional delegation. GIPEC has yet to comment. This is not the first time Bernstein, who occasionally writes for RECORD, has become involved in large-scale design. He also submitted a proposal to rebuild the World Trade Center. *Christopher Kieran*



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Shanghai readying for the 2010 World Expo, but important commissions remain unfilled

While Beijing's urban reinvention for the 2008 Summer Olympics is attracting plenty of attention now, similarly large-scale preparations are under way in Shanghai, China's largest city, for the 2010 World Expo. Compared to the Olympics, which lasts just a fortnight, this event will extend six months and is expected to attract 70 million visitors, according to the city's projections.

Given the Expo's theme, "Better City, Better Life," Shanghai has already started huge infrastructural upgrades, including the construction of four new underground train lines that will nearly double the capacity of its mass-transit system. Work has also begun on a second magnetic levitation train that will connect Shanghai to the neighboring city of Hangzhou. But with the Expo looming just three years in the future, planners have yet to select the architects for several key projects, and other uncertainties remain. Politics is to blame.

Last month the city announced that the East China Architecture Design Institute will design the Expo Center, winning out over Perkins Eastman. But this news was accompanied by word that program changes will cause the 11,000-square-foot building to be split into two smaller structures. Planners also suggested that the Chinese architect collaborate with a foreign firm on a new design.

This somewhat cryptic announcement was only the latest in a series of ambiguous decisions and false starts, played out against a backdrop of political tumult. After China's president Hu Jintao launched a widespread anticorruption crackdown last year, one of the city's chief political figures, Chen Liangyu, secretary of the Communist party, was dismissed from his post. With Chen's indictment on embezzlement charges, many large-scale private and public development projects were placed on hold until additional investigations are complete. The commission for the Expo Center was one victim of the delay; the Expo museum is another.

Xing Tong He, director of Expo planning and research, says that although 2010 is nearing, he is not worried about the remaining architect selections. "We are a smaller operation than the Olympics. And we have time," he says.

Xing adds that Shanghai planners are seeking designs that offer long-term functionality after the Expo is finished. "We want the architecture and design to be meaningful," he explains. "We don't want it to just be ordinary. It'll be the first Expo to take place in China, and we are considering quality and sustainability." To this end, the Expo's star attraction will be Dongtan, an ecosensitive new city district that will house 80,000 people by 2020. *Andrew Yang*

Moscow may breathe new life into the crumbling Narkomfin landmark

In the mad construction dash that has consumed Moscow in recent years, one of the city's more celebrated layers of history has been left by the wayside. Numerous Constructivist structures from the 1920s have fallen victim to their original shoddy construction as well as neglect on the part of succeeding generations. Preservationists' greatest concern has centered on the Narkomfin residential complex, an experimental house-commune built between 1928 and 1930.

Last spring, a group of experts attending a conference organized by the International Council on Monuments and Sites was granted an audience with Mayor Yury Luzhkov to make a case for taking organized action to safeguard the Modernist heritage. The meeting was a rare gesture on the part of the mayor and, according to local observers, it gave impetus to current developments around Narkomfin. In December, deputy mayor Iosif Ordzhonikidze announced plans to convert it into Russia's first time-share hotel. Few further details have been made public, but urgent remediation may finally be under way.

Although long considered a canonical example of the Russian avant-garde, and an object of intense interest for Western architects since Le Corbusier, the building's utopian qualities have made it ill-suited for sustained use. Designed by Moisey Ginzburg and Ignaty Milinis, Narkomfin architecturally expressed new collectivized ideals: Its split-level apartments featured minimal amenities, while a separate unit for communal services was attached to the main building at one end.

Residents soon started modifying these unique living arrangements. Narkomfin's ownership has changed hands several times, and the structure increasingly fell into disrepair. Twice in recent years the World Monument Fund placed it on a list of 100 Most Endangered Sites. A skyrocketing real estate market has fueled suspicions that authorities would rather let Narkomfin—superbly located just behind the American Embassy—wither away than undertake costly repairs. Without explicitly bowing to the preservationist appeals, the city's announcement is viewed as a conciliatory and constructive change of tactics.



Largely ruined, Narkomfin is often the first stop that many visiting architects make in Moscow.



Although Ordzhonikidze has yet to announce a time line or funding for Narkomfin's revitalization, Moscow-based developer MIAN is expected to provide the primary share of private investment. Architect Alexei Ginzburg, the grandson of Narkomfin's chief designer, has proposed conserving the building's structural and interior components while adapting the technical elements to modern standards. His detailed proposal, which has been on public view for years, could lay the groundwork for what promises to be a multifaceted resurrection. He estimates that redevelopment will cost between $15 million and $20 million.

While many Narkomfin apartments have stood vacant for years, roughly half of the 50 units are still occupied despite decrepit conditions. Buying out the residents or resettling them elsewhere remains one of the key stumbling blocks to any reconstruction. Reports indicate that MIAN is approaching apartment owners with individual offers. *Paul Abelsky*

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Students aim to preserve the historic fabric of a battered Lebanese town

Bint Jbail is a small town in southern Lebanon. Labeled a Hezbollah stronghold, it was especially hard hit by Israeli air strikes during last summer's war—more than 2,500 houses were damaged and 800 completely destroyed. But when Howayda Al-Harithy, an associate professor of architecture at the American University of Beirut and a member of its postwar reconstruction unit, arrived shortly after the August 14 cease-fire, she found reason for hope.

As a preservation expert, Al-Harithy saw that much of Bint Jbail's historic fabric had survived. On returning to Beirut, she asked her third- and fourth-year students to envision ways of rebuilding and reinterpreting it. The effort sparked a larger conversation about the town's future—and might spare historic neighborhoods from new destruction.

Al-Harithy is convinced that simply razing damaged houses and replacing them with new construction and 33-foot-wide boulevards, as the city's mayor, Ali Bazzi, originally proposed, would victimize residents again through "the erasure of memory, history, and identity." And so shortly after the war, she urged city and Hezbollah officials to slow—and, inside the old city, halt—the removal of rubble, some of which can be used to build again. Al-Harithy also broached the subject of preservation with representatives of the Qatar Rehabilitation Program of South Lebanon. Qatar has pledged $300 million toward Lebanese rebuilding projects, including the reconstruction of four entire towns, among them Bint Jbail.





Though damaged, Bint Jbail's centuries-old urban fabric can be repaired or reused, preservationists say.

Local architect Haitham Bazzi was impressed by Al-Harithy's commitment. In support of her efforts, he circulated petitions urging that Qatari payments be deferred to fund the creation of a master plan for preservation and adaptive reuse. Bazzi says that of the 148 houses that Al-Harithy would like to include in this project, 102 owners have agreed to hold off on rebuilding.

Negotiations between local officials and the Qataris are under way now and Bazzi hopes that they will conclude this spring. In the meantime, Al-Harithy's students are conducting site analysis and interviews with residents of the damaged areas—work that the American University of Beirut is incorporating into a draft master plan.

The students are also imagining an urban future for Bint Jbail that won't turn its back on a historic past. During recent crits, one young architect named Céline Stephan spoke of "stitching the city back together" with a new library and a resituated marketplace to accommodate the Thursday souk that has taken place since the Ottoman era. Other students paid close attention to preserving the footprints of centuries-old stone houses while also providing for new, Western-style apartments. *Jessica Dheere*

Israel nixes controversial Safdie project

Israel's National Planning and Building Commission has rejected a controversial mixed-use development, designed by Moshe Safdie, FAIA, that would have significantly expanded settlement along Jerusalem's western edge. Known as the "West Jerusalem Plan," the scheme had been facing stiff opposition from environmentalists since it was first proposed more than a decade ago.

The project's developers—which include the Jerusalem Development Authority and the Israel Lands Administration—commissioned the Safdie design for 18,700 housing units as well as commercial structures on almost 6 square miles that the city annexed in 1992. They hoped that the project would stem the drain of middle-class families from the capital, which is Israel's poorest city.

But opponents contended that the development would have produced the opposite effect—its convenient access to Tel Aviv drawing people to work and shop in that city, rather than in Jerusalem. They also feared that the proposed road network would destroy sensitive valley landscapes, including remnants of ancient agricultural systems.

The West Jerusalem Plan remained in limbo for so long because environmentalists had to prove that city planners had other development possibilities open to them, explains Yael Eliashar, of the Society for the Protection of Nature in Israel, which led the opposition. Last November, they successfully persuaded Mayor Uri Lupoliansky to halt the project and instead promote denser and higher development in existing neighborhoods. The denouement for the process came in February, when the national commission voted it down.

Building in Jerusalem is never easy. Earlier this year, aboveground construction finally began on a bridge at the city's entrance. Designed by Santiago Calatrava, FAIA, the project is part of a light-rail scheme due to have been completed last year, now targeted for 2009. And another significant development, the Museum of Tolerance, designed by Frank Gehry, FAIA, remains mired in legal proceedings that have delayed its construction by more than a year. *Esther Hecht*



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Competition rethinks student housing for the echo-boom generation



The class of 2009 will be the largest high school graduating class in U.S. history. If the idea of that many 18-year-olds entering into the world makes you nervous, imagine how university housing officials feel.

Demand for campus housing is expected to keep growing as echo boomers, offspring of the baby-boom generation, make their way through the educational system. To help meet this challenge, the Association of College and University Housing Officials International has initiated a three-stage competition called the 21st Century Project to design and eventually build a "state-of-the-art residential facility" prototype.

The competition's first stage, which concluded this winter, was to design a model room, or "student living unit," as it will appear 25 years in the future. The room must accommodate a range of different sleeping arrangements and provide for advances in technology and sustainability. From a total of 46 entries, Boston-based Jonathan Levi Architects edged out seven finalists for the $25,000 top prize.

Levi's living unit features a media wall, movable storage units, and Murphy beds. A glass wall that changes from transparent to translucent encloses the bathroom, which includes a custom-designed toilet and sink. "Their design brought a lot of new ideas to bear while remaining realistic and buildable," says competition juror C.C. Sullivan.

For his part, Levi attributed the design's buildable quality to his firm's recent experience designing a graduate housing facility for Harvard University, in Cambridge, Massachusetts. "The word *speculation* has been abused in architecture culture—it's come to mean wild form-making—but for us, speculation is intimately tied to building," he observes.

When it comes to building, Levi's 21st Century Project entry is composed of modular components that allow for rapid assembly. Modular construction has the added benefit of creating excellent sound barriers due to double-layered walls, floors, and ceilings. "A sense of isolation is necessary for scholarship. We wanted to give students the option of silence," Levi observes.

The second phase of the 21st Century Project competition, which will start in July, asks entrants to build upon Levi's design, extrapolating it to the scale of a building and emphasizing communal aspects of residential living. A third phase will identify a site for a prototype building, asking entrants to relate the dormitory to a broader campus community.

"Student living space can be a marketing tool for universities," says Michael Coakley, the competition coordinator, "but how those spaces come together contributes to students' ability to succeed once they are enrolled and shapes how they relate to the campus community."

The seven other finalists in the first phase of the competition were American Campus Communities with WDG Architecture of Austin; Angelini and Associates; Bergmeyer Associates; CSO Schenkel Shultz; Marks Thomas Architects; RATIO Architects with KI; and Southern Illinois University Edwardsville with Mackey Mitchell Associates.
Alan G. Brake

New Orleans gets affordable, greener housing

Talk to Chris Goad, a senior architect with Wayne Troyer Architect in New Orleans, and you begin to envision a future for this storm-battered city that includes electricity generating wind turbines sprouting from the rooftops of former factory buildings. David Miller, a real estate developer, has a slightly different but equally compelling and sustainable future in mind, one that integrates affordable housing throughout all of the city's neighborhoods.

The future may not be as far off as it seems. Working with developer Sean Cummings, Goad's office is converting a derelict mill into the Rice Mill Lofts, an apartment and retail complex that aims to become the first LEED Platinum–certified mixed-use project in Louisiana. And Miller, a vice president of the Renaissance Property Group, is redeveloping the abandoned Falstaff Brewery into mixed-income apartments. While the conversion of aging industrial buildings for residential use is nothing new in New Orleans, these projects suggest new directions for the city and its architecture.

Located in the city's historic Bywater neighborhood, the Rice Mill Lofts will contain 50 residential units as well as ground-floor retail shops.



With green features such as a 127-foot-tall wind turbine—whose form evokes a smokestack—photovoltaic arrays, and rainwater reclamation, it is eligible for the highest LEED rating and has already earned a merit award from the American Institute of Architects' New Orleans Chapter [RECORD, March 2006, page 36]. Despite its green features, though, Goad believes the project is easy to replicate. "We really didn't have to do a lot to renovate this old mill building into apartments," he says. "I believe there's lots of opportunity in New Orleans to do this kind of project."



Housing will occupy an old brewery (above) and a mill (left). On the mill's roof, a wind turbine will supply power.

Across town, in the Mid-City area, David Miller also sees untapped potential that could stem from his own redevelopment scheme. Renaissance is taking a 204,000-square-foot former beer brewery and converting it into 149 apartments, half of which are set aside for people making less than the city's median income. "Projects like Falstaff could be hugely positive for redevelopment. I believe it will serve as a catalyst for the area," he says.

The Falstaff building has been a landmark since 1912—its neon sign, some 13 stories high, is visible throughout the city—but it sat vacant for nearly three decades in a neighborhood now filled with bail-bond offices and convenience stores. HMS Architects, with associate architect Webster Design, chose to retain the existing structure, preserving as much of its character as possible. Keith Steger, of HMS, explains that this move allowed for the creation of living units with large window bays and high ceilings—a boon to future residents.

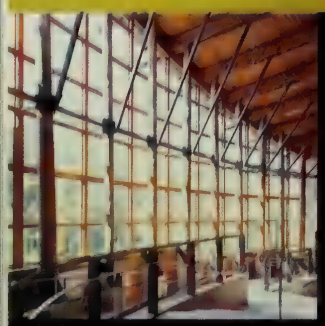
The Falstaff Brewery should be ready for occupancy by the end of this year, while construction on the Rice Mill Lofts is expected to finish in the summer of 2008. For a city in desperate need of new housing, these dates can't come soon enough. *Matt Suplee*


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In D.C., the climate shifts for tackling climate change

In the absence of concerted federal leadership, cities and states have been taking the lead in addressing the issue of climate change. But now, with the help of the American Institute of Architects (AIA), the federal government is finally stepping up to the plate.

The day after his State of the Union speech in January, President Bush signed Executive Order 13423, which mandates green building targets for all executive branch agencies. Topping a long list of goals, it calls for a 3 percent annual reduction in energy intensity, defined as energy consumption per square foot of building space, and increased use of on-site renewable energy.

Why the recent change in attitude? "There's been a growing understanding in the government and executive branch that dependence on foreign oil is something that we need to grapple with," observes Kevin Kampschroer, director of research and expert services for the Public Buildings Service in the General Services Administration (GSA).

"PEOPLE AGREE THAT SOMETHING IS HAPPENING—AND, MOST IMPORTANT, THEY FEEL THAT THEY CAN DO SOMETHING ABOUT IT," SAYS R.K. STEWART, FAIA.

Following the executive order, the GSA raised the energy intensity targets listed in its contract language. Although the agency, which is the nation's largest public landlord, previously required that its own new construction be LEED certified, it also now states a preference for leasing space in buildings constructed in a more sustainable way.

Other possible changes affecting federal space requirements are afoot on Capitol Hill. In February, AIA president R.K. Stewart, FAIA, appeared before Congress to present the group's recommendations on energy efficiency in federal buildings.

Stewart emphasized the critical role that the built environment plays in climate change, noting that buildings produce nearly half of the greenhouse gas emissions that contribute to global warming. "You can argue about the way to change, but architecture is the biggest contributor, so the opportunity to change is there," he explains.

Like Executive Order 13423, the AIA's recommendations specifically address federal buildings—but they take a slightly different tack by going directly to Congress. "It has the ability to make sure that funding exists," Stewart explains.

The AIA is proposing an immediate 50 percent reduction in fossil fuel use, with further reductions every five years until 2030, by which time new federal buildings would be carbon neutral. These numbers coincide with those proposed by the 2030 Challenge, which the U.S. Conference of Mayors adopted last year for municipal buildings [RECORD, August 2006, page 30].

A surprise to some observers, neither the AIA's recommendations nor the executive order require that federal buildings seek LEED certification, which is commonly required by state and local governments. The executive order mandates that new construction and major renovations of agency buildings comply with the *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings*. Signed by 19 federal agencies, these principles establish broad goals that cover many of the same areas as LEED but place greater emphasis on encouraging sustainable practices in ongoing building operations.

The GSA believes that it needs to address more specific operational issues that the LEED systems do not. "Building the building is merely the first step in its life. If you don't take care of the building, you've lost an opportunity," Kampschroer explains.

For its part, the AIA feels that endorsing a single standard would work against its attempts to further the development of all standards. "No standard that exists today addresses these issues in as all-encompassing a way as we, as a profession, think that they need to be addressed," Stewart says.

The AIA is already pursuing the next step with its recommendations by seeking a congressional sponsor to draft legislation that can be attached to a larger bill addressing energy use or climate change.

The critical aspect of the steady stream of action in Washington, Stewart says, is that it signifies a sense of empowerment. "Before, there was debate about whether or not something was happening. Now, people agree that something is happening—and, most important, they feel that they can do something about it." *Amanda Webb*



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Two new Web sites help architecture go open source

At the annual invitation-only Technology Entertainment Design Conference last month, Architecture for Humanity founder Cameron Sinclair took center stage to launch the Open Architecture Prize. Its $250,000 purse, among the largest offered for architecture, will be awarded to the best design for a computer lab that will be built as part of the 50x15 Initiative. This effort, led by chip maker Advanced Micro Devices, aims to provide Internet access to half the world's population by 2015.

Sinclair's announcement came just one day after he inaugurated another project with a similarly global reach: the Open Architecture Network, an open-source online space where architects and engineers can share their ideas with organizations and community leaders that are seeking design solutions for coping with the aftermath of natural disasters and political conflict. In addition to forging connections between socially responsible designers and worthy clients, the network allows creative colleagues to comment on one another's ideas, along the lines of Web sites such as Wikipedia.

Architecture for Humanity is not alone in adapting Wiki culture to the architecture profession. Another project in the works is the Public Information Exchange (PIE), a digital interface that Local Projects, a design studio in New York City, is developing for the Center for Architecture, home to the American Institute of Architect's New York Chapter.

Comparing the two efforts, Local Projects principal Jake Barton says that whereas participants in the Open Architecture Network "are really looking to share how these things are built, and to facilitate working teams across the world," PIE will solicit feedback from design professionals and community members about new buildings in development throughout greater New York. "It's about architects communicating with all stakeholders," he explains.

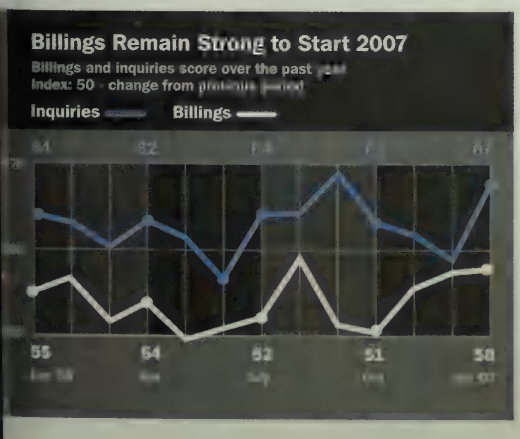
A beta version of PIE launches this month at www.publicinformationexchange.org, with the final version set to go live later this year. A beta version of Architecture for Humanity's vision is already live at; the Open Architecture Prize competition will be managed through this site. *David Sokol*

Commercial billings show unexpected strength in early 2007

Continuing a trend first evident late last year, architecture firms reported a healthy volume of billings for commercial projects in January 2007, according to the American Institute of Architect's monthly Architectural Billings Index (ABI). And, for the first time since last fall, inquiries made to architecture firms also rose.

The AIA's chief economist, Kermit Baker, Hon. AIA, initially attributed this activity to warmer winter weather throughout much of the country prompting clients to get an early start on projects. But he now wonders if the trend instead signals an improving business climate.

"The first half of January was warm, but the second half we had a full-blown winter, and yet we continued to see an upturn in design activity," Baker says. "That leads us to believe that something structural might be going on, not just weather-related activity. We'll be looking at the February numbers carefully."



Although commercial activity remained strong, Baker continues, residential design billings indicate the housing market has yet to recover from its collapse last year. "Single-family work has been in a major recession, and multifamily work has been down for the past six months or so, too."

Data that makes up the ABI is gathered from a survey sent to 300 firm leaders primarily in the commercial design sector. Studies have shown that the index is a good predictor for construction spending nine to 12 months in the future. *J.M.*

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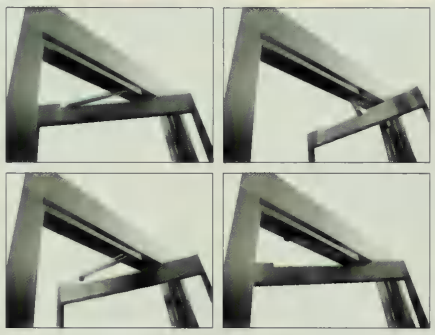
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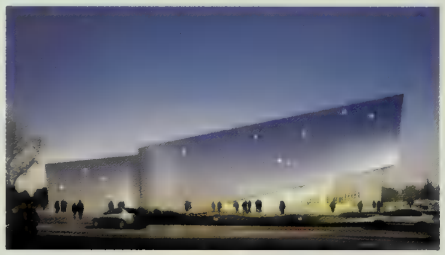
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News Briefs

Arquitectonica's Columbia Memorial Space Learning Center will break ground this spring. Located in Downey, California, the 18,000-square-foot museum honors the seven-member crew of the Columbia Space Shuttle, who perished when the shuttle disintegrated on

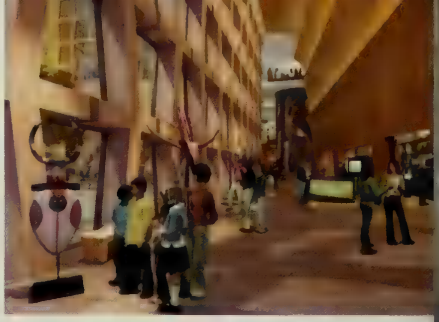


reentry in 2003. "The center will look like it is taking off toward the sky," says Bernardo Fort-Brescia, a principal of the Miami-based firm. Fiber-optic lighting incorporated into metal panels within the facade will simulate constellations of stars. *Jennifer LeClaire*

Thomas Galloway, dean of the College of Architecture at Georgia Tech, died last month at the age of 67. During his 15 years at Georgia, Galloway was credited with raising the school's stature both in the U.S. and abroad, forming partnerships with institutions in France and the United Arab Emirates. Before joining the university, he served as dean and professor of the College of Design at Iowa State University, from 1985 to 1992. He also taught and held administrative positions at the University of Rhode Island and the University of Kansas. *J.M.*

Adalberto Libera's Cinema Airone will be transformed into a public archive for the Oscar-winning composer Ennio Morricone. The derelict theater in suburban Rome was built in 1953 as a tribute to Italy's film industry. Its bloblike volumes, very much in vogue now, were a playful departure for the Italian Rationalist known for his Palace of Congresses, in Rome's EUR district. Bluoostudio and Nema Architecture, both locally based, are designing the Airone renovations. In addition to Morricone's archives, the project will also include an acting school. Construction is expected to finish in 2009. *Susan H. Gordon*

Robert A.M. Stern has designed a new building for the Museum for African Art, to be located on Fifth Avenue in New York City. When the 93,000-square-foot institution opens in 2009, it will be the first all-new museum located on the city's famed "Museum Mile" since the



Guggenheim opened in 1959. The museum is partnering with developers that will construct 116 housing units above the building. "It's a whole new ball game: museums that function as cultural centers for the community," Stern says. "We hope it engages the public." *C.J. Hughes*

The Parrish Art Museum has asked Herzog and de Meuron to rethink its expensive new building in Southampton, New York. The museum originally sought an 80,000-square-foot facility; plans now call for 63,000 square feet to be built in two phases. It will be the Swiss design duo's fourth U.S. museum. Parrish director Trudy Kramer, who announced her retirement last month,



says that the concept remains unchanged. Inspired by 19th-century artist colonies, the architects envisioned a series of separate pavilions housing small galleries. The first phase, expected to cost $55–60 million, will break ground in 2009. *J.M.*

ENDNOTES

- Denise Scott Brown received the 2007 Vilcek Foundation Prize. It honors foreign-born individuals for contributions to American society.
- The Barnes Foundation issued a Request for Qualifications to select an architect to design its new museum in Philadelphia.
- Rem Koolhaas is working on a 52-story "vertical city" for a waterfront site in Jersey City, New Jersey. The tower will contain condos and art studios.
- Plant Architect and Shore Tilbe Irwin were selected to redesign Nathan Phillips Square, which fronts Viljo Revell's Toronto City Hall.
- France and Abu Dhabi inked a controversial $1.3 billion deal to bring the Louvre's name and art to a Jean Nouvel–designed museum on Saadiyat Island.

For more on all of these stories, go to *archrecord.construction.com*.

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For and about the emerging architect

archrecord2

Putting ideas into action can be daunting when you're creating a business. We found two firms that just went for it and are finding how rewarding taking the risk can be. Pique's three principals keep their vision alive from three different locations, using technology to bridge the physical gaps. For British industrial designers Will Crawford and Peter Brewin, it was following through on an idea for a temporary concrete canvas shelter that gave their business legs. Go to archrecord.construction.com/archrecord2 to learn about other talented, risk-taking designers in Design, Work, and Live, and join the conversation in our forums in Talk.

Design

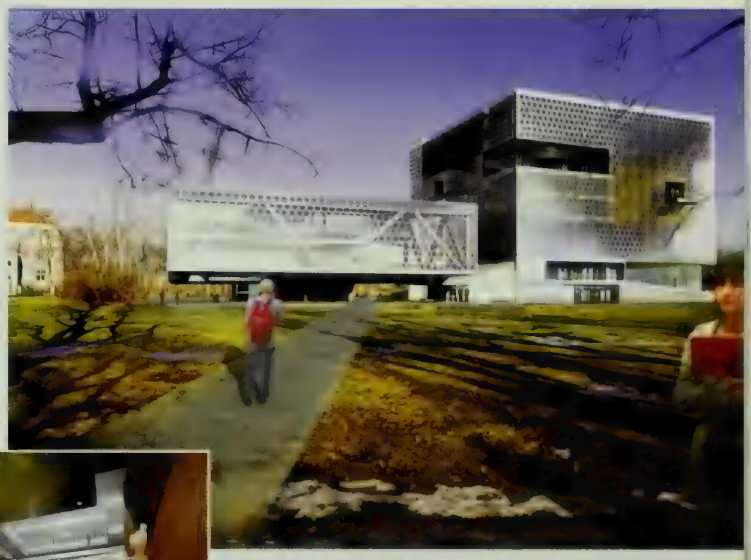
Pique: Three architects, one vision



When architect Peter Jahnke (center in photo) says that he has to stare at Eric Meglasson (left in photo), his partner and coprincipal of architecture firm Pique, all day, he means it, but not in the way you might think. Peter, Eric, and the firm's third coprincipal, Keith Ballantyne (right in photo), live and work in different parts of the world, but together share one practice. "I boot Eric up first thing in the morning and we're together all day," says Jahnke of his Webcam connection with Meglasson, "and I see Keith almost every day, as well." Physically, the three aren't actually within spitting distance very much—Jahnke's home studio is in Seattle; Meglasson's in Bend, Oregon; and Ballantyne lives and works just outside of Edinburgh, Scotland. Still, the three have had an active architectural partnership since 2005.

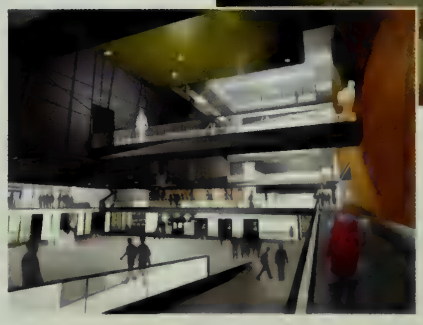
According to Jahnke, while each partner is a skillful designer, they also bring their own special talents to the mix—Jahnke is the instigator, marketer, and pursuer of competitions; Meglasson, the practical doer who loves to be out in the field managing projects and getting things built; and Ballantyne is commentator, critic, and self-admitted minority shareholder in the group. "I'd like to change that balance one day," says Ballantyne, who also teaches at the University of Edinburgh, "but for now I'm the one they turn to to push them and to be critical about the work."

All three hold architecture degrees from Montana State University, but while the university may be the thread that links them together, it is their distance from one another that they believe has strengthened their link and given their practice an edge. The partners' physical distance gives them an objective platform from which to consider each project from all angles—client, location,



National Library of the Czech Republic, Prague, Czech Republic, unbuilt

A competition entry for a 500,000-square-foot library that would incorporate offices and storage of archived collections with general reference materials. The building would include a restaurant and lecture hall.



Viewmaster 2005, Bend, Oregon, unbuilt

Taking cues from a child's toy, the Viewmaster, this home becomes an instrument that gives limits to views with two open lofts, or "lenses," acoustically and experientially separated by an atrium.



materials, budget, and program. There's also a global perspective that comes with the geographical freedom. "We all travel extensively, and I have land in Belgium, where I hope eventually to end up," says Jahnke, whose wife is Belgian. "Creating a business like ours means I could easily do that."

The partners currently have several residences under construction in Bend, and they are looking at commercial interiors projects, as well. They constantly submit designs to competitions worldwide, an exercise they say keeps them exploring and experimenting. According to Jahnke, the potential is limitless. "There is an enormous amount of development out there, and much of it bad," he says. "We know there are people who are looking for something better." Dividing up to find those special clients is working for Pique. *Ingrid Spencer*



Garren Residence, Bend, Oregon, 2007
This low-slung residence rests on a prairie site in the high desert of central Oregon. The strong horizontal elements visually tie the building to the surrounding landscape. Three parallel axis walls orient the house toward prominent views and define outdoor rooms, expanding the small footprint out into the site. The steel-clad spine wall separates private and public portions of the dwelling, above grade and below. A large central void delivers natural light to basement rooms.

For more photos and projects by Pique, go to archrecord.construction.com/archrecord2/.

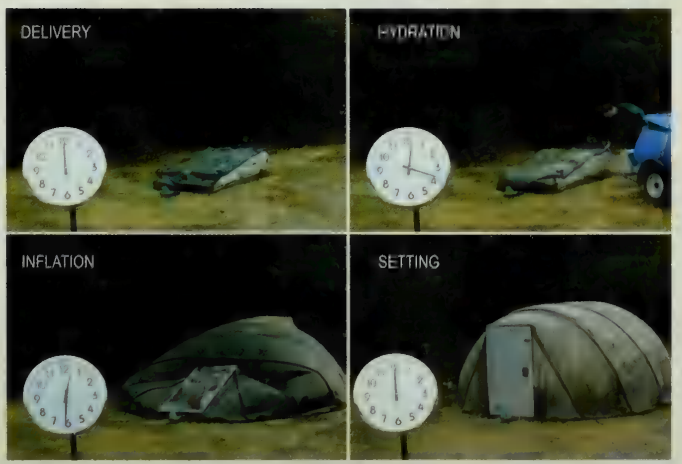


Tumalo House, Tumalo, Oregon, 2008
A narrow home stacked to express the experience of ascending from the scale of trees to the expansive sky. The second and third floors appear to float.

Work

Idea becomes business for two British designers

Experimenting with concrete in school paved the way for British industrial designers Will Crawford and Peter Brewin to enter the business of helping disaster relief workers. The two entrepreneurs are the brains behind Concrete Canvas Technologies, a new company that is marketing inflatable concrete tents to aid organizations as well as the U.S. and U.K. military.



Concrete Canvas: Add water, use a battery-powered fan to inflate, and wait 12 hours.

Crawford and Brewin met three years ago in an industrial design and engineering class at the Royal College of Art in London, where they were pursuing master's degrees. Inspired by the sophistication of an egg, the two explored the use of inflation to create forms that were structurally sound yet lightweight by blowing up balloons filled with plaster. They decided to use inflation to create forms, and found concrete to be an easily compressible material. "There are two basic aspects to the design—cement-impregnated cloth and the use of inflation," says Crawford.

To erect the tent, you add water to the bag and inflate it with air, and 12 hours later it is ready to use. The two students entered their idea in the British Cement Association's annual competition in 2004 for new and innovative uses of concrete, and they won second prize.

During summer vacation, they traveled to Uganda to do field tests.



They spent a month meeting U.N. agencies and nongovernmental organizations and visited six different refugee camps where they tested the idea. They were met with a positive response from aid agencies, who have long needed a way to quickly erect shelters on demand.

After graduation in August 2005, Crawford and Brewin started the company with their prize money, and secured their first round of financing from private investors in April 2006, as well as through a grant from the British government. With the idea that a free trial will lead to sales, the firm has handed out prototype tents to clients like the U.K. and U.S. military and the Red Cross.

With the durability of a portable building and the ease-of-use of a tent, the structures have an estimated life span of five to 10 years, which outlives the normal wear of a tent, while remaining logistically easier and cheaper to manage than prefabricated portable buildings. While cost has yet to be determined—based on further prototype testing—Crawford says he and Brewin plan to take the product to the commercial marketplace, as shelters for sheds and agristorage, or to sell the concrete cloth in rolls to builders for instant hard pouring. *Dianna Dilworth*

For more information on Concrete Canvas and more pictures of the structure in action, go to archrecord.construction.com/archrecord2/.



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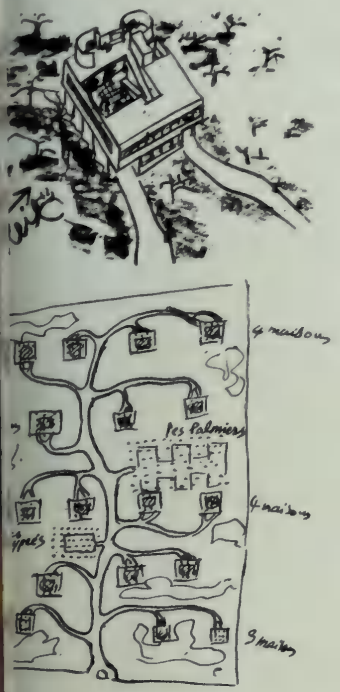
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Does size matter when it comes to design offices and quality?

Critique

By Alexander Gorlin, FAIA



Le Corbusier's sketch for Villa Savoie (top), projected as a development (bottom) 1930.

Once upon a time, Le Corbusier sat in his single-room office alone, pencil in hand, solemnly pondering an architectural problem, "face to face with himself, the wrestling of Jacob and the Angel within the human soul," as he explained in volume eight of *Oeuvres Complètes*. About one project he wrote, "This took a long time to develop, the design worked upon and caressed in days of perfect calm." His famous dictum was "creation is a patient search." Each new edition of the *Oeuvres Complètes* was eagerly anticipated, and although it would come out only every few years with a limited number of projects, every one was marked by an extraordinary level of originality and power: the Villa Savoie, La Tourette, Ronchamp, Maisons Jaoul, the High Court and Assembly at Chandigarh, the Carpenter Center.

Never did more than 15 people work at his office at 35 rue de Sevres, in Paris. Similarly, Louis Kahn never had more than 20 architects at his office in Philadelphia. Of the 40 desks at each of Frank Lloyd Wright's Taliesin studios (East and West), only 20 were ever occupied. At the most, James Stirling's staff was around 25. And, of course, Carlo Scarpa worked with maybe 6 people in his own home office in Vicenza, Italy.

But that was then, and this is now, a time when the world is awash with money, new clients are everywhere, and architects are called upon to build in every corner of the globe as fast as possible, today if not yesterday. With Blackberries, cell phones, wireless computers, and faxes, one is expected to create and produce buildings at an unprecedented scale and rate. And this at a time, at least in the media, when architecture's stock has risen to historic highs. Back when Le Corbusier was working in India and Louis Kahn in Bangladesh (then Pakistan), these locales were considered remote and exotically quaint. Today, construction has exploded in China, Singapore, the Philippines, Thailand, and Dubai.

So what is wrong with this picture? In the 1970s and early '80s, when there was little work, every Michael Graves yellow trace sketch was the talk of the town. Now there is not only a cornucopia of projects, but a lot of architects' wildest fantasies are actually being built in places like Shanghai and Dubai.

Isn't this what every architect wants—larger projects, bigger offices, and fatter budgets? Yes, but … A large office is not only a blessing, but also a curse. There is the inevitable loss of control—"many a slip betwixt cup and lip"—as directions from the design partner to subordinates, and then through construction drawings to the contractor, are lost or mistranslated. And, as we know, it is almost impossible to construct even the simplest things correctly. In an office, everyone has a personality, attitude, and ego, especially in a field rife with prima donnas. You must be really "hot" to get a job at Zaha's! Architecture often winds up being more about managing people than design. As Bill Pedersen of Kohn Pedersen Fox told me after I proudly informed him I had hired my first employee, "Now the trouble begins."

So how is it possible for architects who have arrived at the pinnacle of their profession and are known for the intensity of their design and their obsession to detail to expand successfully to a size that rivals the large corporate firms? Can one have an atelier of 200 people working at the same level of originality and care as one of 20? There is a clear and present danger that too much work will dilute the production of even the best firms. History is strewn with the wreckage of bloated offices' late work, such as any of Ed Barnes's or Ulrich Franzen's faceless towers. And can anyone forgive Walter Gropius his horrendous Pan Am Building?

Both Frank Gehry and Zaha Hadid now have offices with more than 200 people. Not only do they have numerous projects of gigantic scale, but the distance between projects requires the architects to spend a great deal of time on planes. Is it possible to maintain the quality of design at this size and with projects flung across the world? Is there a danger of repeating oneself when clients demand a "Gehry" or "Zaha" for their city or museum? Does it matter?

On the opposite end of the spectrum is Glenn Murcutt, who works alone and refuses to take projects outside of Australia, as he believes one can only build where one completely understands the site. This extreme position—the architect as a kind of local tribal shaman—does not make enormous sense with the realities of global communications (actually since the invention of the telephone), but it does raise the issue of how to build appropriately in different locations, climates, and cultures. This has been a problem of Modernism since Philip Johnson and Henry-Russell Hitchcock's 1932 MoMA exhibition declared there was one International Style suitable for all locations. This long-discredited

Alexander Gorlin, FAIA, heads Alexander Gorlin Architects in New York and is the author of Creating the New American Townhouse *(Rizzoli).*

notion, oddly enough, is being raised again through the multiple commissions of boutique architects asked to repeat their "signature" projects regardless of the site. Do Richard Meier's glass towers on the Hudson in New York make sense near Miami in even more Minimal garb?

Both Le Corbusier and Mies van der Rohe walked the fine line between innovation and repetition, but did so within the context of solving a problem in an architectural typology. One of the answers to housing for Le Corbusier was the slab of the Marseilles block, where duplex apartments were stacked within a structural frame, the whole building was raised off the ground on pilotis, and a terrace occupied the roof. He repeated versions of this scheme in Berlin and Briey-le-Forêt, and proposed them in all of his urban plans. Were they all as well done as Marseilles? Perhaps not, but they were to be seen together as a laboratory of investigation, refining an answer to a clearly stated problem. The same goes for Mies, in his series of corporate office buildings: Seagram in New York City, IBM and the Federal Center in Chicago, and Westmount Square in Montreal. Mies developed a language that for him was an expression of the "zeitgeist," the spirit of the age, and therefore needed no excuse for "originality." Refinement was the goal; each was as subtly different as one Greek temple was from another. For myself, Seagram trumps them all, but that was not the point.

Today, it's different for architects such as Gehry, whose late work has been compared to sculpture and who has been called the Michelangelo of his age. Such comparisons imply that he alone is the final arbiter of each curve and arc. His late work recalls James Stirling's calling Ronchamp "a masterpiece of a unique and most personal order." As opposed to Mies's right-angled vocabulary of construction, which created a school of followers, Gehry's work even now is untouchable in its hermetic formulas, however open and approachable it is for the public.

After the enormous success of the Guggenheim in Bilbao, Gehry produced Disney Concert Hall, in Los Angeles, the Corcoran Gallery of Art, in Washington, D.C., and the Guggenheim New York, all variations on a theme. What if, after Ronchamp, churches all wanted similar solutions? Of course, Le Corbusier himself extended the vocabulary of Ronchamp in his church at Firminy, France, and at Chandigarh. Since

HAS GEHRY DISCOVERED THE "MAGIC TRICK" OF MAINTAINING A HIGH LEVEL OF DESIGN WITHIN A LARGE OFFICE?

Bilbao, has Gehry been mining a similarly rich vein of form?

The problem is that when architecture is presented as fine art and sculpture, then each project is considered unique, and not as an answer to the problem of how to make a blockbuster form to embody the aspiration of a place such as Bilbao. This ultimately works against the desire to explore the same themes within a typology, as the variations invariably question and vitiate the uniqueness of the initial object. Uniqueness is an essential part of the aura of the object, as expressed in Walter Benjamin's *The Work of Art in the Age of Mechanical Reproduction*. Benjamin notes that film, which he considers to have less aura than the authentic object, "responds to the shriveling of the aura with an artificial build-up of the 'personality' outside the studio. The cult of the movie star … preserves not the unique aura of the person, but the 'spell of the personality,' the phony spell of a commodity." The same thing seems to be happening with brand-name architects today. As demand has risen for this group and repetition in their work has increased, the "starchitect" phenomenon has accompanied the "shrunken aura" of the subsequent architectural projects.

Of course, it is unrealistic to expect every new project by Gehry to be a masterpiece; even he admits that. But what can he pull off at the 8.7-million-square-foot Atlantic Yards mega-project in dear old Brooklyn, New York, which at the moment looks more like Co-op City with a bad case of the shingles?

At another level, the problem stems from the incorrect application of the "artist" model to the architect by the media. Even Le Corbusier carefully maintained a distinction between his painting, sculpture, and architecture. Rather than Jackson Pollock or Rembrandt, two solo artists, it is Peter Paul Rubens and his atelier that are a more accurate model for architecture. Rubens had a large workshop with many assistants. He started his paintings with an oil sketch, which was often enlarged and worked on by assistants under his supervision, and then he applied finishing "highlights" to the canvas. More recently, Andy Warhol's Factory was legendary as the place where he created his work, never alone at any time of the day or night.

Warhol is germane to the concept of repetition versus originality, as is Giorgio de Chirico, who literally copied his own early canvases late in his career. Warhol admired this direction and even copied de Chirico's copies! Perhaps it's time to admit it's okay to copy; in fact, it's a good idea! Even Le Corbusier proposed copying the Villa Savoie for a development in Argentina, noting, "This same house, I should set it down in a corner of the beautiful Argentine countryside: We shall have 20 houses rising from the high grass of an orchard where cows continue to graze." *Plus ça change*!

Gehry should be grateful that at the tender age of 78, he is still pumping out excellent work—without a doubt the effect of architectural Viagra. Perhaps he has indeed discovered the "magic trick" of maintaining a high level of design within a large office, as he told me recently. (So why aren't the SOMs of the world doing the same?)

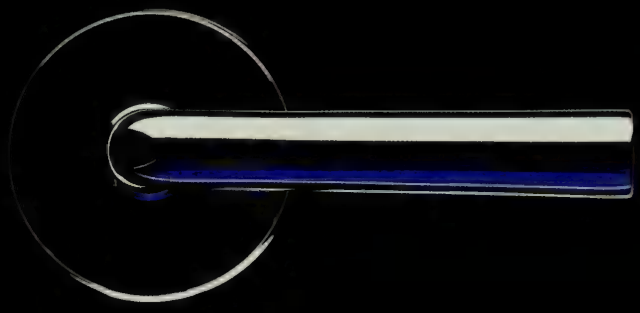
Regarding Zaha, as far as I can see, the jury is still out. As opposed to Gehry, who emerged after years of building fairly undistinguished commercial structures, she spent a long time hand painting visions of flight and lightness and has not built much. What has been built is very different from her initial drawings. In Germany, at Vitra, her concrete fire station is choked with rebars; at Wolfsburg and BMW, there was a realization that a new direction was necessary, and we see Deco-like continuous concrete curves, a fluid Brutalism—or is that brutal fluidism? Two hundred people working for her? Seems out of control, but we must wait and see what she builds next.

Richard Meier, with 65 employees in New York and 25 in Los Angeles, never had a problem repeating himself and never presented each project as distinctly unique. From the beginning, the success of his early houses established a vocabulary of Corbusian-derived formal strategies and a restrained white palette that he rarely veered from. This single-minded commitment to a specific "style" with rules and limitations was teachable to people in the office, allowing it to grow. So strict was his early formal system that when I worked as an intern there years ago, it was the news of the day when he used a curve in the Schomburg Pavilion! Very slowly, his all-white vocabulary broadened to include gray. And now he has actually used dark wood in a house in Malibu.

So what is one to do? Since architectural immortality may be fairly limited in the near future, with global warming and the apocalypse happening sooner rather than later, why not carpe diem (seize the day) and take on another hundred staffers? Or should Gehry and Hadid follow Nancy Reagan's dictum and just say no to the lure and addiction of more work and bigger offices? ■



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Designing the (North and South) American Dream

Books



Oscar Niemeyer Houses,
by Alan Hess, with photography by Alan Weintraub. New York: Rizzoli, 2006, 231 pages, $65.

Although identified largely with monumental civic creations such as iconic government buildings in Brasilia, Oscar Niemeyer has inconspicuously worked on house designs for seven decades. This book, the first on his houses, presents a convincing case for residences as central to his oeuvre. The allure of the houses in this finely honed survey reveals how far Niemeyer has evolved from a young follower of Le Corbusier's vision of houses as "machines for living" to an original creator of houses as sensual structures for living close to nature.

Niemeyer, who is 99 years old, prefaces Alan Hess's text and Alan Weintraub's photographs with a clear overview of his residential style: "I am attracted to free-flowing, sensual curves. The curves that I find in the mountains of my country, in the sinuousness of its rivers, in the waves of the ocean, and on the body of the beloved woman." He has translated this romantic vision into residences showcasing bending, dynamically slanting, and often biomorphic concrete forms. Niemeyer's love of curves surfaced in his first house design for himself, completed in 1953 in Rio, topped by a curvilinear roof conjuring a seemingly weightless, floating lily pad. His next house for himself, built in Brasilia in 1960, brought feminine curves to the design of a shapely swimming pool, an ironic counterpoint to his *fazenda*-style residence adjoining the pool. The *fazenda* was a typical 19th-century coffee-plantation-owner's house on an estate maintained by slaves. Niemeyer's reformulation of it serves as a symbolic act, trying to redeem Brazil's slave past while also showing how Modernism can embrace vernacular forms.

Hess's commentary offers just enough historical and cultural background to enhance our appreciation for these residences. Weintraub's 200 sharply detailed, atmospheric photographs do justice to the tropical sensuality of Niemeyer's designs. Together, they create an experience akin to being graciously welcomed as an honored guest in Niemeyer's houses. *Norman Weinstein*

Sarasota Modern,
by Andrew Weaving. New York: Rizzoli, 2006, 207 pages, $50.

Sarasota Modern pays homage to a remarkable moment in the early 1950s when a "confluence of talented and daring architects coupled with a hip crowd willing to take risks" made the west coast of Florida a center of avant-garde design. The work of Ralph Twitchell, Victor Lundy, and particularly Paul Rudolph formed the Sarasota School, which historian Henry-Russell Hitchcock in 1952 called "the most exciting new



architecture in the world."

Sarasota was a somewhat unlikely spot, yet its barrier islands and subtropical climate made it an ideal laboratory for a Modernism that was both elegant and environmentally intelligent. After Rudolph and Lundy moved elsewhere, a new generation of architects came to Siesta Key and Lido Shores to build more flat-roofed, concrete, and cedar houses with central courtyards and cross ventilation, and filled them with Bertoia, Eames, and Neutra furniture.

Splendid as these pure examples of Gropius-in-a-warm-climate were, many are modest second homes occupying prime real estate. The Sarasota School patrimony is threatened by nature, changes in taste, and greed. Author Andrew Weaving, a Modern dealer in London, bought two examples of the style: a Gene Leedy house in Winter Haven and a Mark Hampton in Lakeland. The book is his plea for a renewed appreciation of Sarasota style and its preservation.

Weaving provides a historical overview of the movement and its main protagonists, plus essays on 18 key houses. While these include two recent entries by Toshiko Mori, most are from the golden age, providing the reader with a sentimental stroll back to the 1950s. These prime examples are often restorations by aficionados who have furnished their houses with George Nelson clocks, Saarinen womb chairs, and abstract paintings.

Sarasota Modern is a welcome tribute to that vibrant Florida moment. It is, however, marred by sloppy editing (good grammar and punctuation do matter), and needless errors (the Farnsworth Museum is in Maine, not in Massachusetts; *piloti* is not a plural noun, and so on). The designer of the book, too, might have taken some lessons from the straightforward design of the houses. *William Morgan*

Tom Kundig: Houses,
edited by Dung Ngo. New York: Princeton Architectural Press, 2006, 176 pages, $40.

A cold and sleepless night spent bivouacking on a mountain face left a 20-year-old Tom Kundig with a visceral experience that has continued to shape his architecture. Opening his preface with this defining mem-



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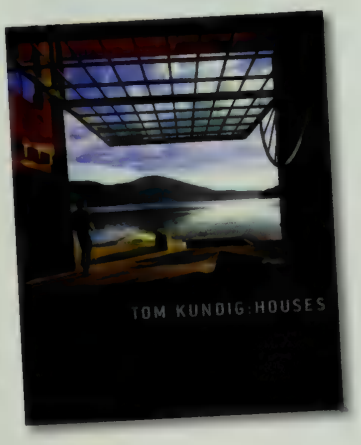
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ory, Kundig indirectly implies a link between the experience and its lasting influence on his work, concluding that "architecture became less of a career and more of a learning pathway." Now a partner in the Seattle-based firm Olson Sundberg Kundig Allen Architects, Kundig's signature contraptions, like a hand crank that enables even a child to pivot a six-ton steel-and-glass picture window at Chicken Point Cabin in Northern Idaho, have enchanted clients, magazines, museums, and award panels for more than a decade. The five residences in this monograph were chosen to reflect Kundig's mountaineering aesthetic through such idiosyncratic design details, which he refers to as "gizmos."

Dung Ngo, the book's editor, believes that the true significance of Kundig's experimental mechanisms is a refreshing and underappreciated reappropriation of engineering into architecture. Pages of sketches, occasionally as simple as scribbles on ruled paper, provide intriguing glimpses into the development of some intricate contraptions and fetishlike details, for example the glass marbles used to plug holes left from the concrete framework at the Brain Studio in Seattle. But if the aim was to focus on gizmos and, as Ngo puts it, "the desire to incorporate another vocabulary, another language of making into the rigid codes of today's architectural construction," then the reader is left desiring a more substantial explanation of this other language. Magnified drawings of gear systems accompanied by scant text are less than satisfying.

Kundig's details inspire a child-like curiosity that begs people to take his work apart and learn how it operates. This book is only superficially successful at satisfying that desire. Ngo is right: There is something creative and novel here. But the book is stuffed with images, some of which are redundant. We can look at a house from half a dozen angles or more—but a mere single-sentence caption won't really get us inside of it. One senses that the pictures were intended to fill space, which is odd since so many Kundig houses are omitted. The residences here are mostly those that have garnered the greatest number of awards, which makes the publication initially seem like an overzealous publicity pamphlet. But the book is smartly arranged to guide the reader's experience of the gizmos. The buildings appear in order of the increasing complexity, prominence, or abundance of the imaginative devices in each, culminating in the house Kundig hot-rodded for himself and his wife in Seattle. By the time this house appears, the reader's eye has been trained to fasten onto the myriad miniature design moments in a house that might otherwise appear stark in contrast to the preceeding four. It is difficult not to be captured by the obsessive minutia and mechanistic moments in these houses.

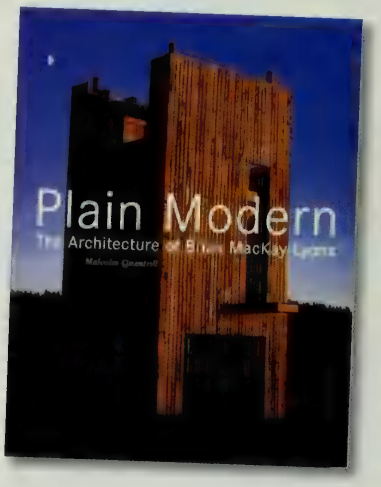
Ngo says of Kundig's gizmos that they bring life to static architectural elements. They connect people with architecture, and in some cases, connect architecture with nature. They are fascinating, but dangerously so. Drawing perspective away from the whole, they can appear overwrought. A massive steel-beam



system at the Studio House in Seattle serves primarily to support light fixtures, not the house structure. The awkward guest bathroom and lack of intimacy in this immensely scaled house reveal an inconsistent appreciation for functionality within the chosen projects. The nearby Brain Studio, on the other hand, demonstrates an elemental simplicity and relevance to the ideals of the book, like the "reinvention of the commodity" exemplified by a balcony designed from repurposed road construction steel plates.

Tom Kundig has proved himself an architect with a crafty aesthetic that can become addictive. No doubt his image-heavy monograph will feed the fever. *Christopher Kieran*

Plain Modern: The Architecture of Brian MacKay-Lyons, *by Malcolm Quantrill, with contributions by Kenneth Frampton and Glen Murcutt and project texts by Brian MacKay-Lyons. New York: Princeton Architectural Press, 2005, 224 pages, $40.*

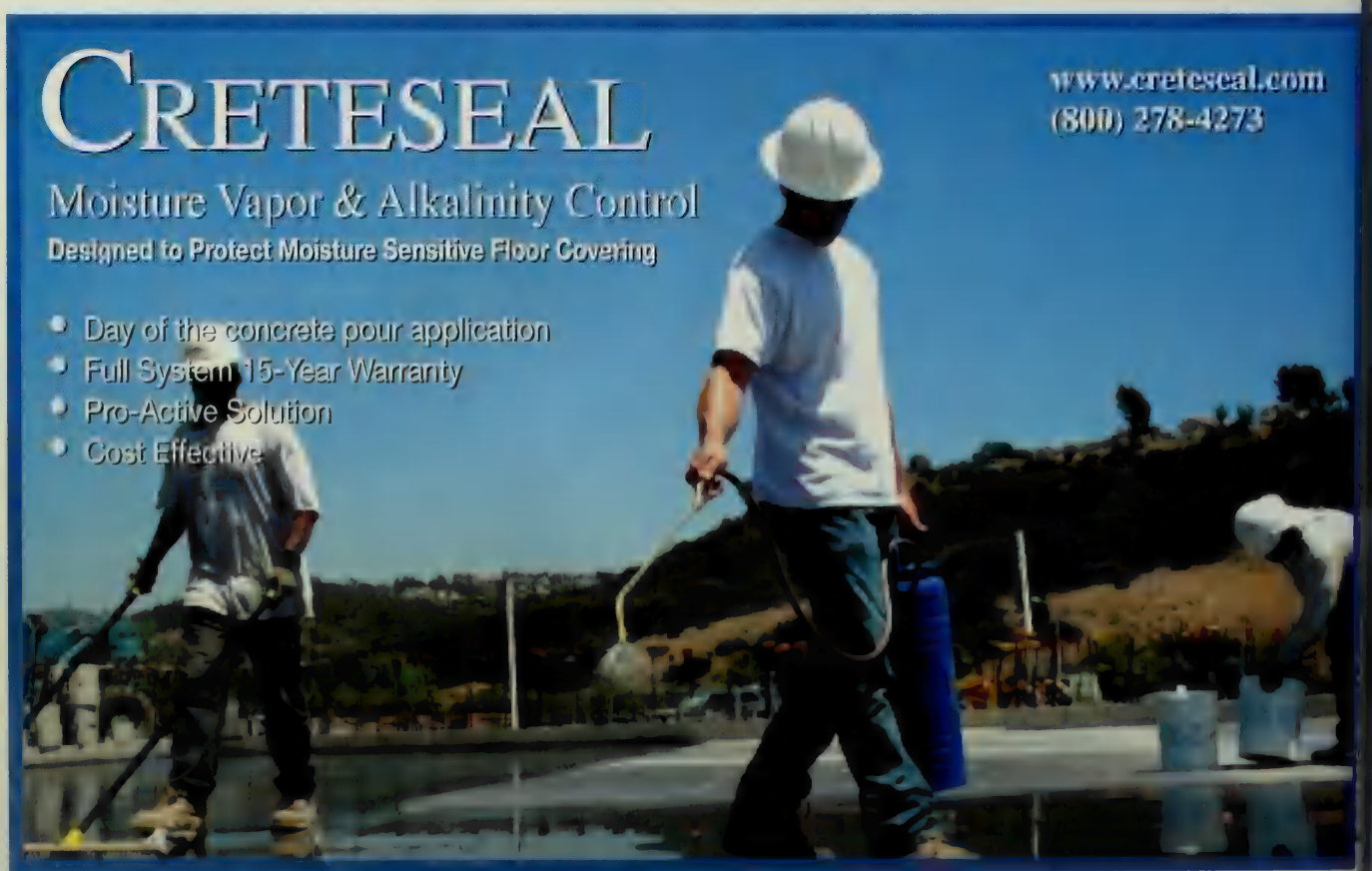


In many ways, Brian MacKay-Lyons, who was born and raised in Arcadia, Nova Scotia, to which he returned in 1983 after studying and working abroad, is the Glenn Murcutt of North America. Like Murcutt, the Pritzker Prize–winning architect from Australia, MacKay-Lyons has erected a legacy of plain modern houses informed by local vernacular forms, building materials, and conventions. In the preface to *Plain Modern*, Murcutt likens MacKay-Lyons's buildings to traditional boats and boat-building structures "constructed with tight, crisp, timber-clad skins over simple, internal, exposed structure." The work, like Murcutt's, is affordable, low-tech, and tough for a tough climate.

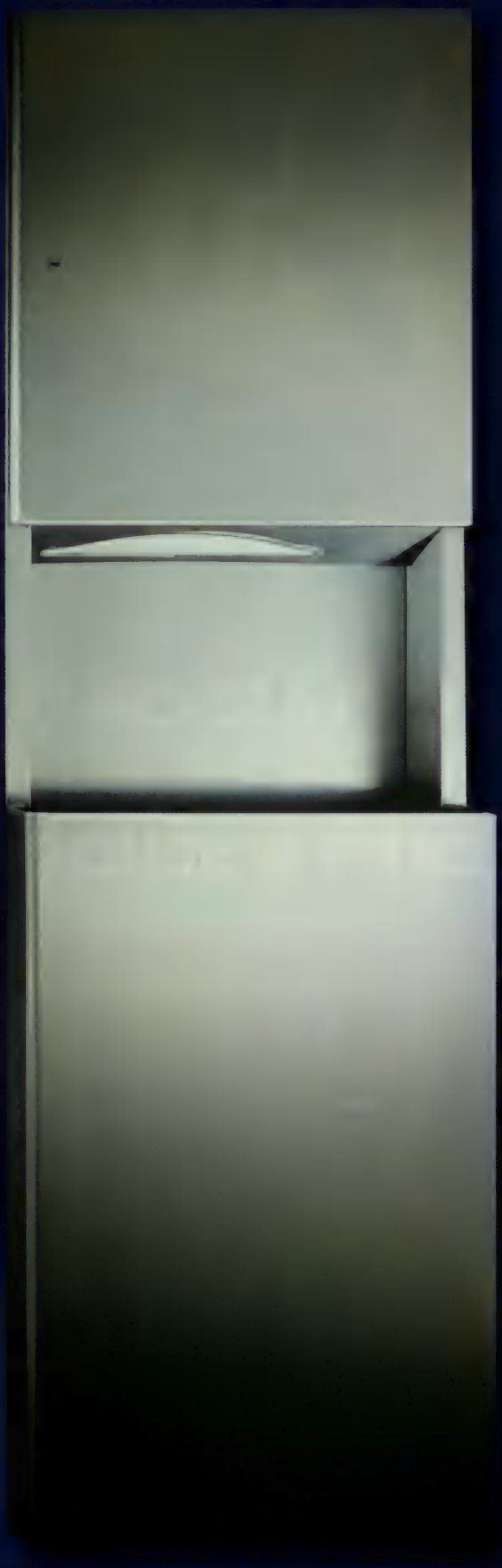
Interestingly, some of MacKay-Lyons's buildings also have a family resemblance to houses by Samuel Mockbee and his Rural Studio in Alabama. MacKay-Lyons's 1998 Barn House is a close cousin to the Rural Studio's Haybale House of 1994: Both are simple, rectangular volumes topped by a big, overhanging metal roof. MacKay-Lyons and Mockbee's Rural Studio look to simple structures—barns, sheds, trailers—for their design cues.

Plain Modern's weakest link, for me, is Quantrill's introduction. He writes, at length, about events and thoughts more germane to his own work than to MacKay-Lyons's. His characterization of MacKay-Lyons as a "peasant prince" overlooks the fact that peasants have been nonexistent in North America since they first reached these shores and became American farmers. MacKay-Lyons's project descriptions, by contrast, are as plain, direct, and appealing as his buildings.

MacKay-Lyons, whose Nova Scotia house designs have made him a leading exponent of critical regionalism, is expanding his horizons. *Plain Modern* concludes with plans and models for the firm's largest and most complex project to date, the Canadian High Commission in Dhaka, Bangladesh. *Andrea Oppenheimer Dean*



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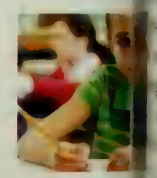
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World-traveling show draws urban design in 10 lines

Exhibitions

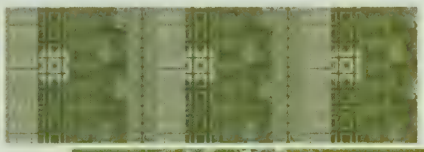
By John Gendall

X Lines *Curated by Joan Busquets with Felipe Correa. Originated at Harvard GSD, December 2005; Quito Architectural Biennale, November 2006; Tshingua University, Beijing, fall 2007.*

Urban Design, a term coined at the Harvard Graduate School of Design (GSD) in the mid-1950s, is the tenuously defined profession consigned to the blurred zone where architecture, landscape architecture, and city planning overlap. Practiced mostly in seminar rooms of prestigious universities, it is still staking out its territory as a stand-alone field. The Fall 2006/Winter 2007 issue of the *Harvard Design Magazine* (*HDM*), presents a conversation among nine preeminent designers, academics, and writers on a question urban designers should find pressing: "What is Urban Design?" This query follows an essay by Michael Sorkin in the same issue of *HDM*, in which he begins by announcing, "Urban Design has reached a dead end."

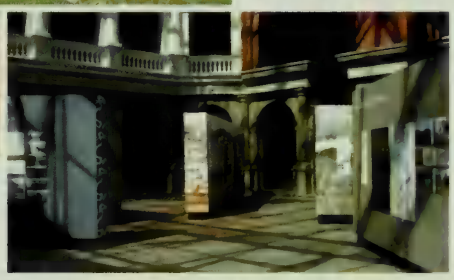
Adding to the uncertainties of the discipline's objectives and professional parameters is the fact that its focus—the city—has undergone changes sufficient to challenge even the most entrenched field of study and practice. In recent years, cities have swelled at unprecedented rates, forcing a reconsideration of urban strategies.

In the midst of these discussions comes the beautifully executed exhibition, *X Lines: A New Lens for the Urbanistic Project*, curated by GSD professor Joan Busquets, a Barcelona-based architect, in collaboration with GSD design critic Felipe Correa. Presenting 10 different methods of carrying out urban design, X Lines (with its X referring to the Roman numeral 10) sets out to articulate and perhaps justify this field of investigation. What Sorkin pronounced dead, Busquets and Correa rush in to resuscitate. Sorkin argues that the discipline, overcome with nostalgia, lacks the ideological underpinnings and methodological means to engage cities constructively and imaginatively. While consciously omitting the term Urban Design from the entire show, in favor of "Urbanistic Project," Busquets and Correa offer myriad examples of how Urban Design is both constructive and imaginative. They envision *X Lines* as a point of departure for designers considering urban interventions and as an infusion into the ongoing dialogue about the discipline's direction.





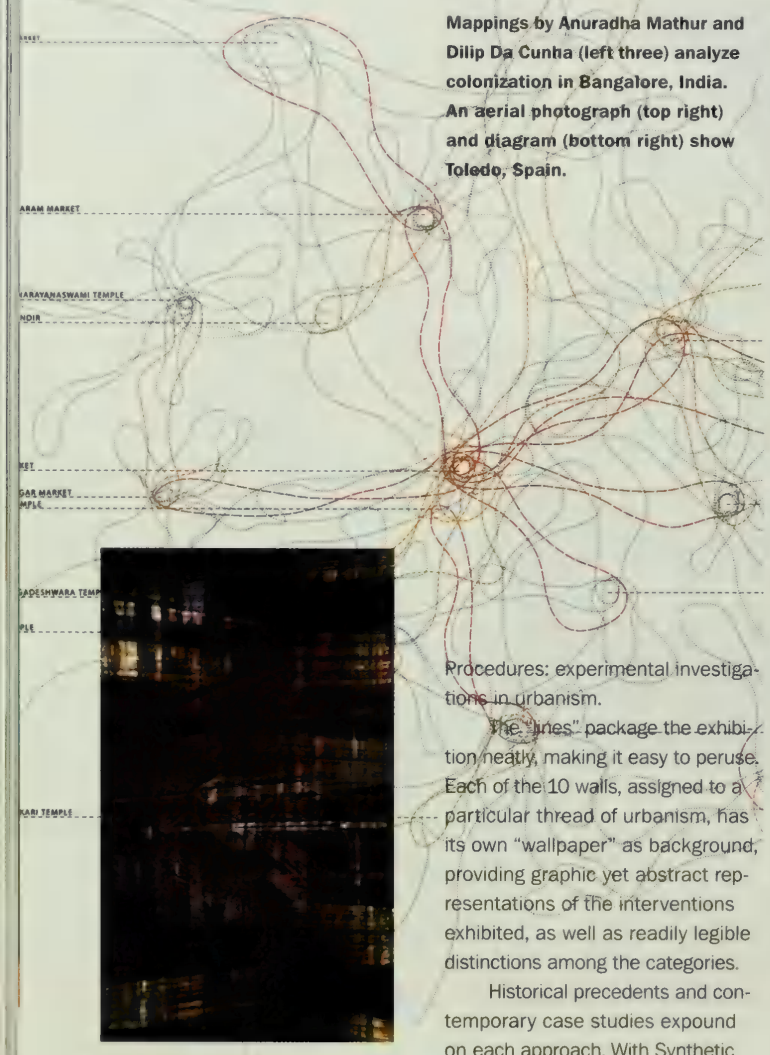




The Quito Biennale showed *X Lines* (below). A mapping of Bilbao analyzed the urban effects of Gehry's building (bottom). "Wallpaper," abstracting urban conditions, runs through the show (left).

Dividing the show into methodological categories, the curators identify the following 10 different "lines," or project types, which they appropriate as examples of "Urbanistic Projects": 1) Synthetic Gestures: construction of an iconic building; 2) Multiplied Grounds: creation of multilevel layers of urban fabric; 3) Tactical Maneuvers: minimalist interventions; 4) Reconfigured Surfaces: restructuring of open space; 5) Piecemeal Aggregations: intermediate urban fragments; 6) Traditional Views: New Urbanism; 7) Recycled Territories: decentralization; 8) Core Retrofitting: updating of historic cores; 9) Analog Compositions: projects that defy master plans; and 10) Speculative









Mappings by Anuradha Mathur and Dilip Da Cunha (left three) analyze colonization in Bangalore, India. An aerial photograph (top right) and diagram (bottom right) show Toledo, Spain.

Procedures: experimental investigations in urbanism.

The "lines" package the exhibition neatly, making it easy to peruse. Each of the 10 walls, assigned to a particular thread of urbanism, has its own "wallpaper" as background, providing graphic yet abstract representations of the interventions exhibited, as well as readily legible distinctions among the categories.

Historical precedents and contemporary case studies expound on each approach. With Synthetic Gestures, the curators look at iconic buildings that, they contend, initiate comprehensive strategies for restructuring entire cities and regions. This category analyzes projects that are often brushed off as merely formal manifestations of star architects' egos.

Frank Gehry's Guggenheim, in Bilbao, the perennial example, springs to the top of the list. Mappings by landscape architect Gonzalo V. Cruz reveal the building's effects on the city's waterfront, transportation systems, and harbors. Toyo Ito's Sendai Mediatheque and Peter Cook and Colin Fournier's Kunsthaus Graz offer further examples of urban catalysts.

Another category, the seventh "line," Recycled Territories, addresses urban interventions outside of the consolidated city. Citing New York's Fresh Kills, and the Bordeaux riverfront and Caen Industrial Park, in France, the curators also turn considerable attention to Anuradha Mathur and Dilip Da Cunha's mappings of India's Bangalore territory, demonstrating the role of colonization on that region's urban areas.

Mathur and Da Cunha's stunning research highlights one of the show's greatest virtues and unstated objectives: to reveal and test the limits of the methods of representation used in design disciplines (and, by appropriation, in Urban Design). Replete with magisterial drawings, diagrams, and maps, the exhibition offers a rich spectrum of architectural research. Analytical essays by Busquets and Correa in the accompanying catalog ground the work in terms of urban significance.

Far from definitive, however, the "lines" impose arbitrary distinctions on urban conditions. The curators acknowledge that they could have delineated seven or, for that matter, 29 lines, with some projects falling into any number of different categories. But even with that acknowledgment, the attempt to define an amorphous profession by herding different techniques into quasi-arbitrary categories is of debatable value. The curators do well to highlight examples of successful projects, which they interpret urbanistically, reminding designers that buildings and landscapes have implications extending far beyond the particular sites.

In the end, viewers are left with a stimulating collection of visual analyses of urban scenarios, some predictable, some surprising, all beautifully represented, and grouped with others that appear at least superficially akin (if not always more profoundly related).

With this exhibition, as with ongoing discussions at design schools, people may still be left wondering, "What is Urban Design?" And such questioning may be the show's greatest contribution. By reframing the discipline into categories, the curators open the formulation of Urban Design to a new scope of possibilities. Even for a field that has comfortably enjoyed more than 50 years of self-reflection in classrooms and journals, this opportunity for yet more debate places it in more tangible terms than before. ■



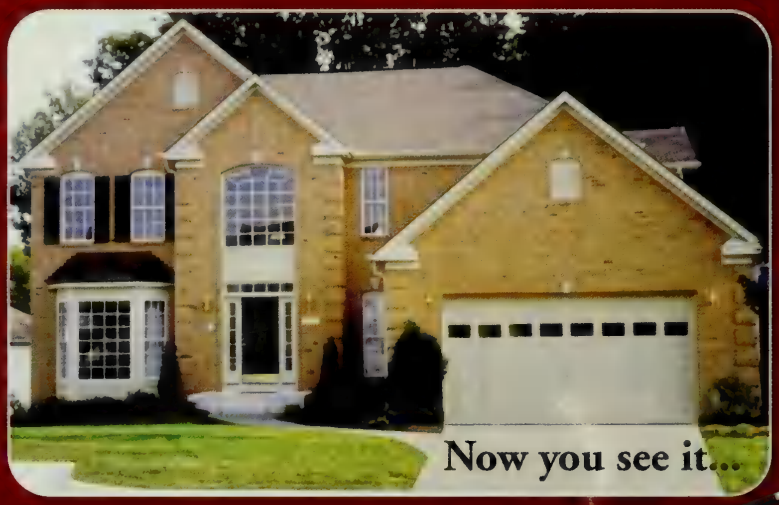
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Where independent contractors are concerned, know the rules

Practice Matters

By Alec Appelbaum

Architecture firms may need to lure extra hands for all sorts of reasons. One might be to staff up for a sweet opportunity that's too good to pass up, but is just a bit beyond the capacity of the office. Another might be to get the benefits of a specialist whose skills are perfect for a current project but might or might not be needed in the future. Those sorts of situations always present principals with a dilemma: do you hire new staff permanently or expand temporarily using hired guns? At first glance it appears that if the good times won't last and overhead will have to be shaved when the project ends, independent contractors may seem to be the solution.

DON'T THINK THAT JUST BECAUSE YOU'RE NOT WITHHOLDING TAXES ON SOMEONE THAT THE IRS WILL AGREE THAT THEY'RE AN INDEPENDENT CONTRACTOR.

But don't think that just because you've decided not to withhold income and social security taxes from a person's wages that the Internal Revenue Service will agree that you've truly retained an independent contractor. The IRS can be very picky about this and it has certain tests to apply to any given situation. It can hit you with penalties if it disagrees about whether someone has been working for herself or as an employee of your practice. This is not only because it wants to protect workers from unscrupulous practices, but it also wants a smoother flow of tax payments and, ostensibly, a fairer market. "Employers that improperly deprive workers of benefits disadvantage those businesses that bear higher costs in complying with the law," said Massachusetts' tax agency in a 2004 advisory explaining its strict attitude. "In this way, independent contractor misclassification undermines fair market competition."

Architecture has become a more collaborative business as clients have sought sustainability, buzz, and new technology. The kind of expertise a practice needs to reach a new threshold often involves specialists—lighting consultants, irrigation experts, model-makers—who may only work for a short time. Hiring outside companies such as structural engineers need not induce the employee-or-contractor question: the firms must evaluate their own employment practices. But when architects take on individuals for short stints, tax questions and ethical ones intertwine. Many in the profession, leery of exploiting young and energetic designers, simply avoid taking on help during busy times without providing health benefits and insurance.



Who's an independent?

Like it or not, somebody becomes an employee in the tax collector's eyes just by showing up enough times, using your equipment, and willingly taking direction. And, nowadays, when many architects and specialists work freelance forever or between jobs, it is particularly important for large and small practices to document nonpermanent workers carefully.

Senior associate Polly Brazelton of Michael Van Valkenburgh & Associates, which keeps offices in New York and Cambridge, Massachusetts, consulted a lawyer after Massachusetts tightened its definition of "independent contractor" in 2004. On advice from counsel, the firm started withholding payroll taxes from a broader range of workers. Brazelton sums it up: "If they are working in our offices with our equipment for long stretches, even if they had a different expertise, we would classify them as an employee."

The IRS also invokes a test, the "common-law rule," to decide whether you have to withhold taxes

Alec Appelbaum is a Manhattan-based writer who covers architecture, planning, and urban life for several newspapers and magazines.

from a worker. Essentially, it turns on how thoroughly the person follows the firm's instruction and uses the firm's resources. A firm can only control the results of an independent contractor's work; they cannot control how the work is accomplished. Brazelton says her firm confers employee status via three tests: "If they are doing substantially the same work as our employees, if we are directing the process by which they work, or we are providing the location and tools for them to complete the work." She advises architects to show their lawyers the firm's hiring practices, policies, and procedures to make sure nobody triggers a meaningful penalty.

Also, have your lawyer draw up a menu of items that define what it means to be an independent contractor, and to go over the terms with every freelancer who comes to work in your offices, and possibly have them sign a statement that says they received the document. Among the items that might be covered are that the work is for hire; that taxes are the responsibility of the worker; and that the relationship can be terminated at will by either party. An adroit freelancer, says Rafael Pelli of Pelli Clarke Pelli, will "ask as many questions as possible." But knowing what questions to ask, he adds, only comes with time and experience.

"There's a lot of moving around of younger architects because it's very easy for a small firm to get busy or a large firm to get unbusy," says Ed Rubin, a principal in Manhattan's Mullen Rubin Architects. (His office consists of the two principals, an architect, and a secretary.) "There are many firms that underpay because they bid too low on projects to pay wages that are acceptable."

Rubin won't pay freelance fees to anybody who works full days for his firm and doesn't have other meaningful income. "Sometimes there's a subtle difference," he says. "If I am a draftsman and I do work for 20 architects, that's one thing. If you just pay me a fee as a way of avoiding the withholding that comes with wages, that's another."

Freelancers and firm culture

No architect would say that avoiding hassles from the IRS over who's an employee and who's not will make them sharper at their craft. But whether your firm decides its priority is to train and retain or to run lean and mean says a lot about a firm's culture internally, as well as what strengths it may offer its clients. Many architects say that leaving employment terms loose can lead to excessively casual attitudes about the quality of the work, since freelancers may not have the same level of commitment that employees do.

DRAW UP A LIST OF ITEMS THAT DEFINE WHAT AN INDEPENDENT CONTRACTOR IS AND GO OVER IT WITH THOSE YOU HIRE.

Tim Love, AIA, principal at Utile Design in Boston, says a payment scheme often influences how workers manage their time. He says bringing on workers without benefits can make a studio seem more like an atelier than a dynamic business. Independent contractors who work for long periods of time without getting social security or workers' comp, he says, can start to feel like students. The message from the "employer" to the worker can amount to: "You [should] pay me to work here because it's like you're in school." Love treats this as a "shady practice" that used to arise fairly often at "boutique firms." And he says he avoids it as much to preserve a "9 A.M. to 6 P.M. culture," in which everyone feels impetus to work efficiently, as to stay out of trouble with the tax collector.

So if a broad definition of "employee" serves your bookkeeping and your bottom line, how can a firm go about staffing up for sudden big jobs? The answer depends on the firm's size and resources. The 20-person Utile staff includes six teachers, so Love taps students who understand the link between their studio work and the experience they gain in the job. While small firms like this can use students to support a team, large ones can treat ambitious projects as chances to deepen their overall strength. Again, firm culture drives the decision as much as bookkeeping does.

Seattle-based NBBJ uses labor-intensive new jobs as occasions for finding new hires who can enrich the firm over the long haul. NBBJ architect Kerry Hegedus says the chance to design Safeco Field for the Seattle Mariners prompted the firm to use a smaller firm in-house for a limited time—but also prompted a wave of new hires who stuck around and adopted different roles over time. "We look for people with some experience," he says. "There's more upside in hiring someone than in having someone come in for a few months."

At the other end of the scale, sole practitioners turn down work rather than endure the hassle of accounting for—and managing—extra staff. Berkeley's Scott McGlashan, who started McGlashan Architecture in 2004, says he limits extra help to "a few hours here and there," mostly for design and drafting work. Staying solo hardly eliminates all tax headaches, but it allows a young firm to focus on building a style and reputation more deliberately. He says he's finishing up a $3 million house and would have to take on staff to manage two projects of that size. Again, what looks superficially like an accounting question bears on how an architect manages client contact and portfolio.

Of course, today's flexible workforce allows some architects to grow their practice while treating their full-time staff as free agents. One head of a six-person firm even argues that this treatment stokes creativity and output, but steers clear of long-term commitments. "People act as employees in every respect except for on the books," he says. "In every respect it's like working at SOM except that come payday, they invoice me, I cut them a check for the full amount, and they pay their own taxes." Tellingly, this person only spoke on the condition of anonymity.

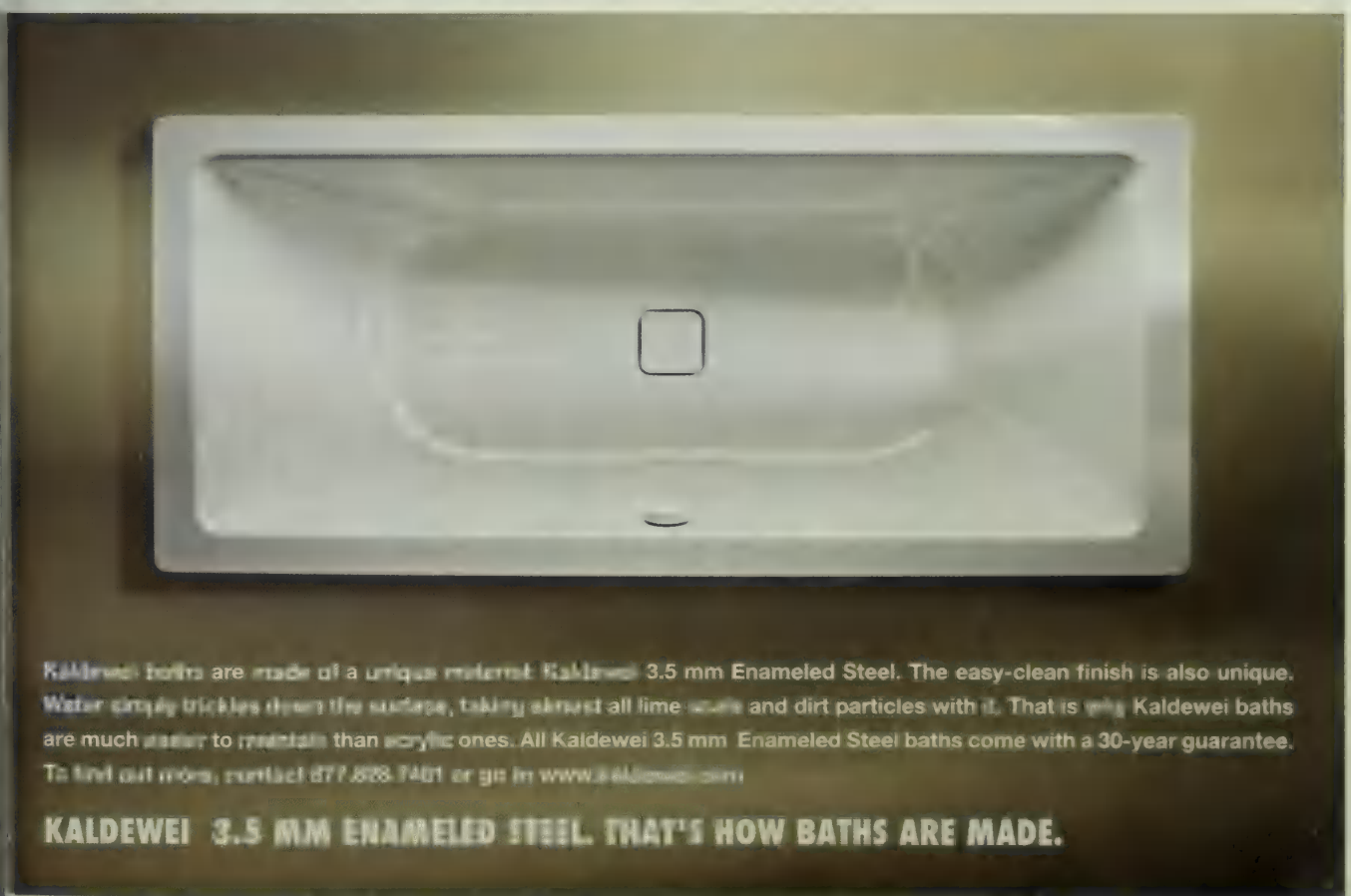
This practitioner argues that freeing himself from accounting headaches enhances office productivity by treating workers with respect. "It's not easy for a young firm to heap on benefits. I pay more than a lot of small firms, and I'd rather give [workers] the money and have them figure out how to spend their money." Moreover, he says, the arrangement lets his staff claim tax deductions on equipment, meals, transportation, and home-office equipment they use. The IRS has examined the practice, he says, adding that his "immaculate records" documented all his office's work and sent the examiner away after 2 hours.

In crowded markets, where there is almost always lots of work, people may work as independent contractors throughout their entire career. In New York City, an advocacy group, Freelancers Union, offers health insurance at discounted rates to independent designers. And even in cities without insurance pools, there may be enough work available for ambitious designers to cover their own taxes and insurance while they build a portfolio. In this situation, advises Pelli, the worker should clarify mutual goals and approaches at the outset. That's something architects should know how to do with clients, of course. But it's not something they can do with the IRS. ■

Always consult a lawyer or accountant regarding employment and tax questions. Readers can download the Internal Revenue Service's information on independent contractors by visiting Practice Matters on the Web at archrecord.com/practice/.



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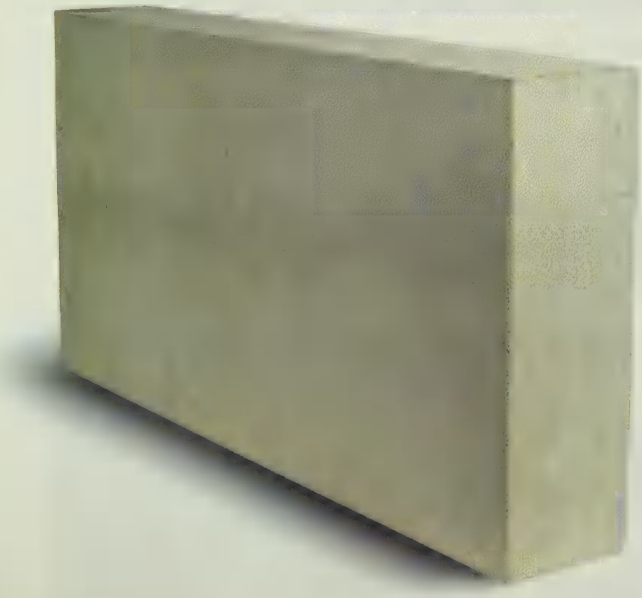
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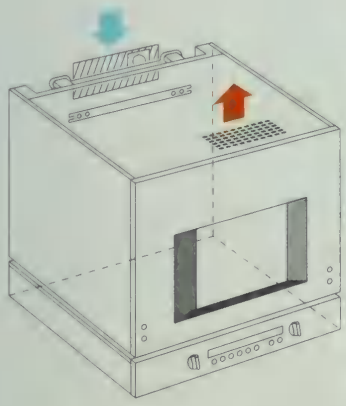


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Product View







By Rita Catinella Orrell

A wall-mounted oven that offers counter service

With the touch of a button, Gaggenau's 24-inch Lift Oven's glass ceramic base lowers directly from the oven to the countertop, where meals can be loaded and then raised into the cooking cavity. According to the manufacturer, this new approach results in minimal energy loss as the heat remains in the upper cavity when it is opened. The design may also aid users who have limited strength or mobility as access from three sides eliminates the need to reach into a hot oven. The stainless-steel-tinted glass front oven can either be hung on a wall or built into hanging cabinetry. Features include halogen lighting, 11 heating methods, automatic temperature recommendation, and precise electronic temperature control. An added bonus for cooks: Items such as bread and pizza can be cooked directly on the glass ceramic base, and a pyrolytic self-cleaning program burns off any residues left behind. Gaggenau, Huntington Beach, Calif. www.gaggenau-usa.com **CIRCLE 200**

Clockwise from top left: A drawing illustrates the oven's ventilation and air-extraction slots, which must remain free from obstruction; the oven descended to counter height; halogen lighting provides a view of the interior.



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Trade Show Review Cologne • International Furniture Fair

imm Cologne has the distinction of not only being the first furniture fair of the year, but one of the biggest. The ideal venue for Northern European companies to present their latest creations, imm also boasts one of the most international displays of furniture design anywhere. *Josephine Minutillo*

1 A designer's legacy Designed by the late Maarten Van Severen (and carried through by his former assistant), Pastoe's introduction of a leather lounge chair was quite the surprise. The chair features ■ one-sided mounted armrest and ■ cross-stitched leather cover that is screwed to the stainless steel frame. Pastoe, Utrecht, The Netherlands. www.pastoe.nl **CIRCLE 201**

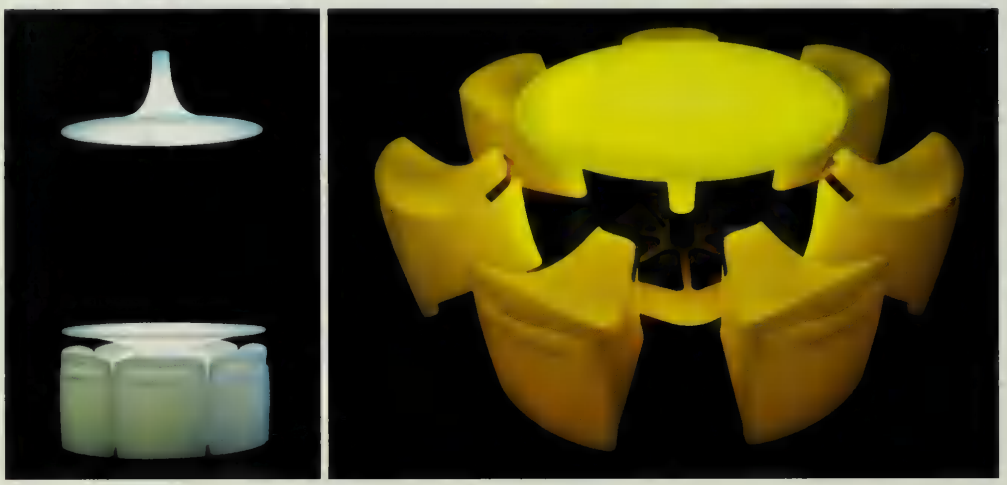
2 Lava flow The team behind Studio Vertijet, Kirsten Antje Hoppert and Steffen Kroll, designed the Lava sofa for Cor. Featuring an amorphous, flowing form, Lava includes a range of transforming elements, including one that overlaps the seat of the sofa to spread onto the floor. Cor, Rheda-Wiedenbrück, Germany. www.cor.de **CIRCLE 202**

3 Updated classics Thonet's classic bentwood chairs were recently treated to a face-lift. The Viennese Coffee House Chair, or Chair no. 214, is now available with an airy, mesh-fabric seat in addition to the original woven-cane seat, and in upholstered versions in a variety of colors. Thonet, Frankenberg, Germany. www.thonet.de **CIRCLE 203**

4 *Finnished* floors Textile designer Hanna Korvela's most recent introduction is Aqua, a resilient indoor/outdoor rug. Unlike most water-resistant rugs, Aqua has a soft look that is suitable for residential use and in spas for sauna and pool areas. Hanna Korvela Design, Kuopio, Finland. www.hannakorveladesign.fi **CIRCLE 204**

5 Log on As one half of imm's Ideal House exhibitors alongside Zaha Hadid, Naoto Fukasawa played a major role at this year's fair. Resembling a fallen tree, his distinctive Log series in oak veneer features low, hollow benches, both long and short, and a vertical stool that doubles as a table. Swedese, Vaggeryd, Sweden. www.swedese.com **CIRCLE 205**





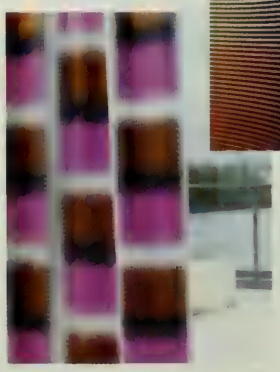
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6 Giddy up When it comes to finding playful, even off-the-wall pieces, Belgian outdoor line Extremis is typically a safe bet. This year in Cologne, the company presented an unusual new outdoor seating ensemble. Bronco is a plastic stool whose shape is derived from a horse saddle. The accompanying table, Corral, also made from rotation-molded polyethylene, can be lit up in various colors depending on the chosen filter. When hung upside down, the table becomes a light fixture fittingly called C'upsidedown. Extremis, Gijverinkhove, Belgium. www.extremis.be **CIRCLE 206**

7 Soft woods Founded in 1995, e15 established its reputation for its exclusive use of solid wood, particularly oak. Recently the company has broadened its scope, this year introducing two new upholstered pieces. The Kashan sofa is easily identifiable as an e15 product with its solid wood backrest and Minimalist form. The Shiraz sofa (shown), on the other hand, features no wood at all. Its unusual form was inspired in part by traditional Persian seating islands. e15, Oberursel, Germany. www.e15.com **CIRCLE 207**

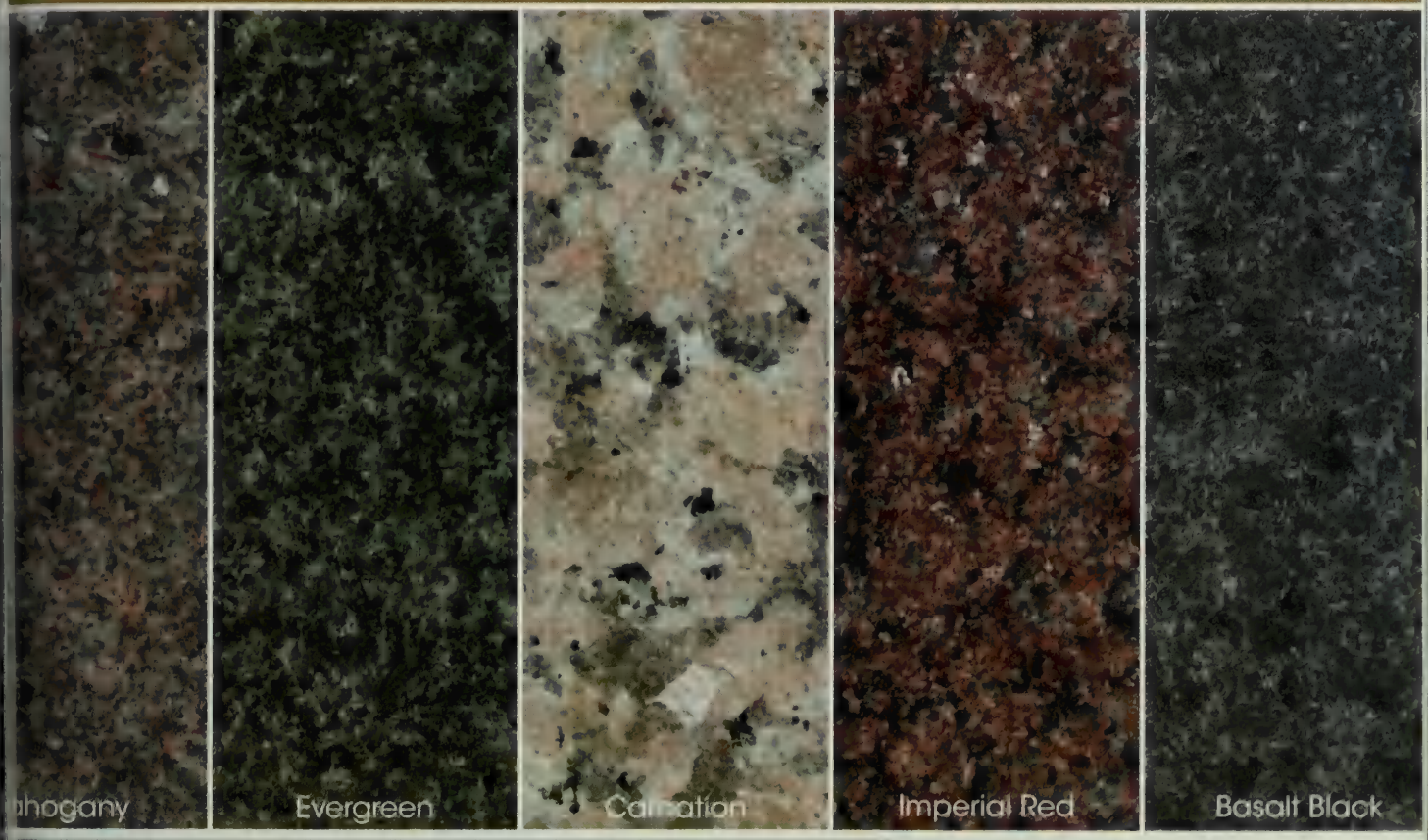
8 Far-out fabric Winner of the Best Item award at imm, Kinnasand's Rocco fabric exploits a new development in weaving technology. Using a special clip-cord technique, the multilayered, graphically arranged colored panels optically flow into one another. The resulting complex coloring and shading gets its airiness from the change from sheer to densely woven stripes. Kinnasand, Westerstede, Germany. www.kinnasand.de **CIRCLE 208**

9 Punk rocker The young design duo of Patrick Frey and Markus Boge have designed products for several German furniture companies, most recently for the playful line Elmar Flötotto. The splayed legs of their new seat, Abraham, may look a bit odd, but they make for a comfortable and smooth rocking chair. Available with a matching ottoman. Elmar Flötotto, Gütersloh, Germany. www.elmarfloetotto.de **CIRCLE 209**

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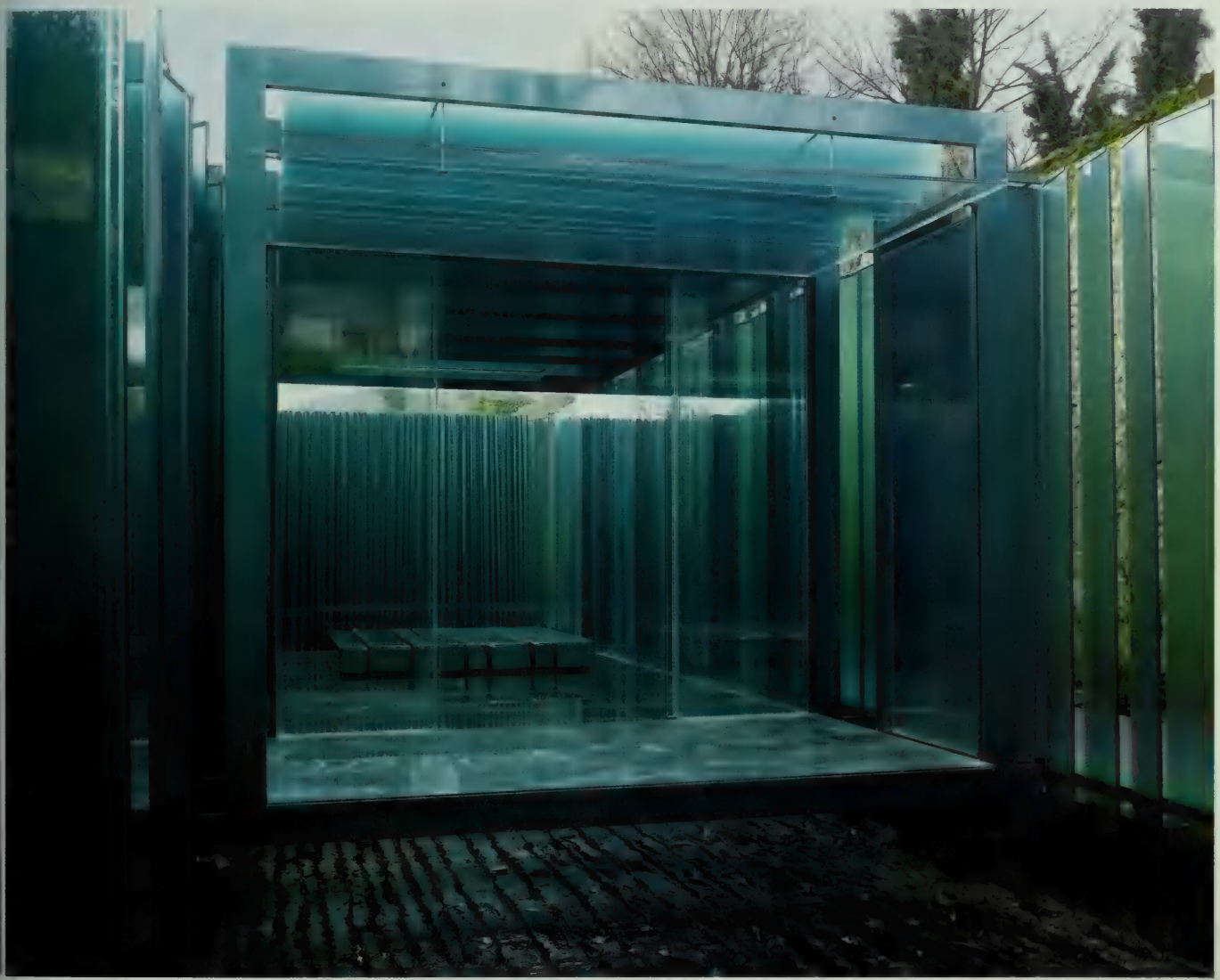
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Snapshot



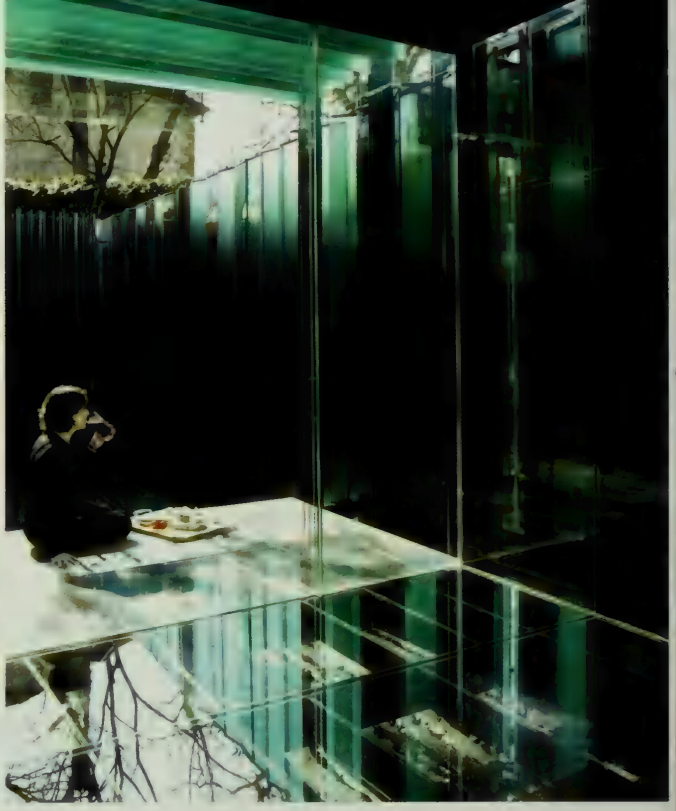
Ode to the postprandial retreat

By Beth Broome

After the last of the *crema Catalana* has been consumed and the dregs at the bottom of the demitasse cup are all that remain of a blowout dinner, a car ride home can be a real letdown. Hoping to extend the experience of dining at Les Cols, a world-class restaurant in Olot, in northeastern Spain, chef and owner Fina Puigdevall called upon local architects RCR to create a luxurious but spare lodging—with five separate pavilions—for diners wishing to spend the night. Four years earlier, RCR had designed the restaurant itself, using steel in varied and fanciful treatments, on the ground floor of the Puigdevall family's 17th-century farmhouse [RECORD, September 2003, page 136].

The chef brings a philosophy to her cooking that celebrates pure, unadulterated ingredients. And the architects seem to share this view. "We use as few materials as possible," says RCR partner Carme Pigem. "We try to exploit the different ways of using or looking at the same material." Each slightly different from the next, the pavilions are, except for their steel structural elements, almost entirely of

Layers of transparency and reflection blur lines between inside and out (right). Bathrooms are minimal to an extreme (below). Pavilions are accessed off of glass-louver-lined exterior corridors (bottom).



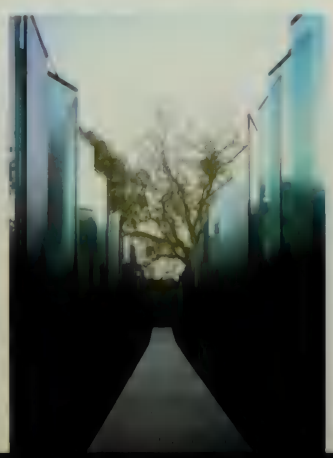


a single material: glass, expressed in laminated ceilings and floors; transparent walls and doors; and translucent floor-to-ceiling louvers.

To enter the pavilions, guests follow one of two narrow paths defined by stainless-steel elevated walkways and flanked by the louvered glass walls that cast a dramatic green glow. Each pavilion looks out onto its own small courtyard, paved in dark concrete, textured to resemble both a plowed field and lava flows—a nod to the region's volcanic past. This treatment continues beneath the pavilions, visible through the raised glass floors. Clusters of thin steel tubes, painted green to mimic reeds, provide privacy between the small buildings.

RCR has created a postprandial hermitage in the midst of this small Catalonian town. The decor is monastic. Each interior features a single piece of furniture: a leather-clad mattress that serves as a table, bed, or sofa. There are no TVs, phones, or electric outlets. A built-in closet and mini bar remain discreetly concealed. Bathrooms are similarly pared-down, featuring simple black fixtures devoid of fittings as the sink and bath are constantly filled with water, relying on a sensor to prompt replenishing as needed.

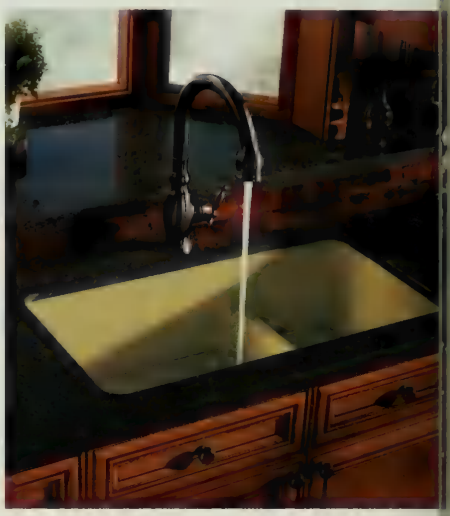
While transparency and infinite reflections help bring the outside in, the rooms' austerity draws the visitor's focus even deeper inside, beyond the confines of the space. "You have the sky, the air, the silence, the water," says Pigem, noting that leaving guests alone with these natural elements gives them entrée to one of the richest delicacies of all: introspection. Even if you did not come to Les Cols to meditate, there is a good chance you will be feeling the flow of your chi before you check out. ■




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K-5838-7U-96 Deerfield Smart Divide undercounter kitchen sink in Biscuit. Shown with Coralais® faucet.



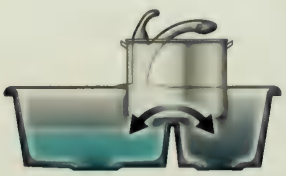
K-6625-33 Iron/Tones Smart Divide undercounter kitchen sink in Mexican Sand™. Shown with Vinnata™ faucet.

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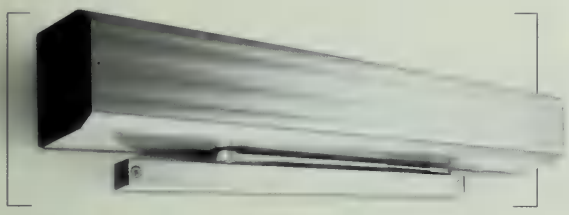
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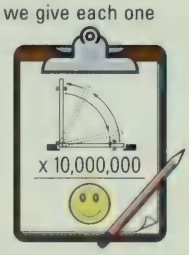
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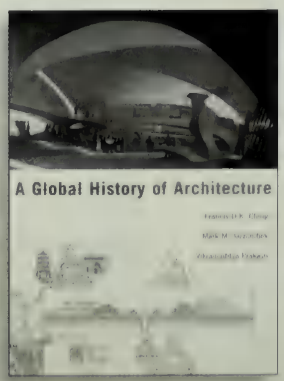
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Just add Water

Seven swimming pools offer contrasting places of leisure and sensory experience — RECORD dives in



By John Gendall and Sarah Amelar

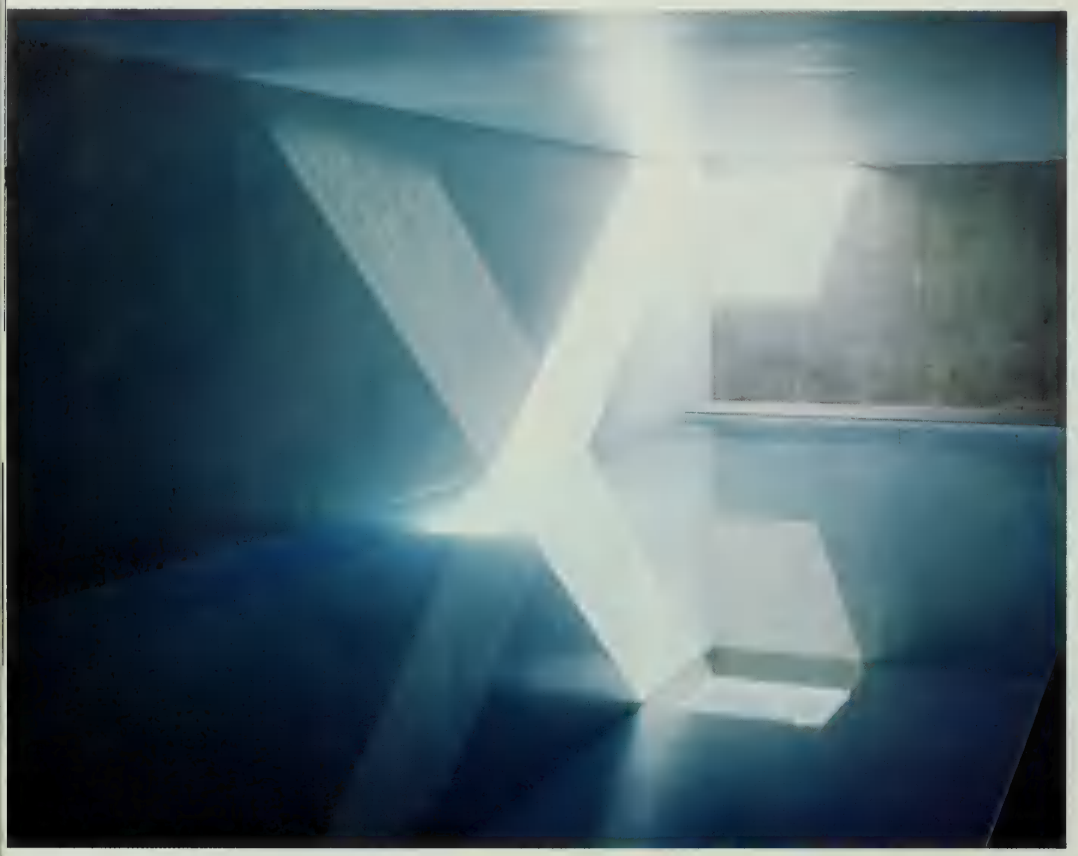
Pools are all about experience. *The Graduate*'s Benjamin Braddock, aimlessly adrift on his inflatable raft and peering through his diving mask, can attest to it. As can the starlet of glossy Hollywood 8x10s, lounging poolside in a glamorous bikini and stilettos.

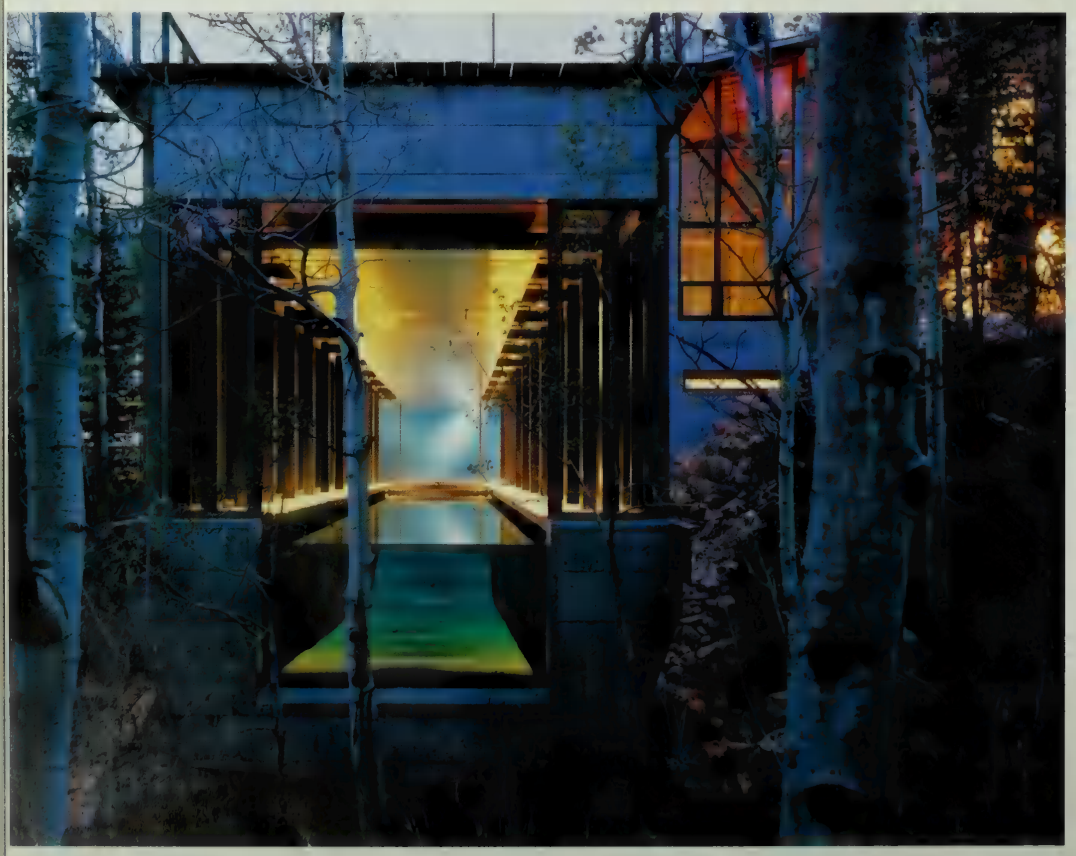
People once went to pools for sacred rites of bathing and immersion, as in ancient Greece and Rome. Now such aqueous oases have more to do with rites of leisure than anything else. And no matter how shallow or deep the experiences offered there, swimming

Left: OMA: Villa dall'Ava, St. Cloud, France.

Right: Julia Morgan: Marion Davies's Beach House, Santa Monica, California.







Left: Jonathan Woolf: Brick Leaf House, London.

Below: Bohlin Cywinski Jackson: Farrar Residence, Park City, Utah.

pools remain fabricated environments—artificial bodies of water, whether rectilinear or kidney-shaped and lined in turquoise, or placid planks of liquid vanishing into the horizon.

Presenting a small collection of choice residential pools, RECORD slips into a sensible swimsuit and takes the plunge. Moving from the inside to the outside, and then back in again, we float from the depths of artifice to the shimmering surfaces of faux nature.

At Marion Davies's California beach house, designed by Julia Morgan for William Randolph Hearst, the indoor pool glitters with lapis and gold tile. This surface suggests an opulent oriental rug that, in effect, upholsters not only the pool, but also the poolside, the walls, and the ceiling. Enveloping the entire space in deep-water hues and rich textile patterns, this pool area becomes an exotic, all-immersive living room.

Meanwhile, outdoors, David Hockney, the arbiter of all things aquatic (and perhaps, artificial), abandons the rectilinear in favor of the kidney for his own pool in Southern California. The kidney-shaped backyard pool (a cousin of amoeba or boomerang coffee tables) became a prototype in the 1950s. With it, the artist celebrates the banality of the American suburb. By painting swirling, multicolored lines on the great water container's bottom, he gives it an added dimension, playfully suggesting wild undercurrents.

In Papudo, Chile, Smiljan Radic cantilevers a cast-concrete pool, thrusting it like a visual spring-



Right: Smiljan Radic: Casa Pite, Papudo, Chile.



Right: David Hockney: The Artist's Own Pool, Southern California.



Left: Casa Delphin, Fuster + Partners, Santurce, Puerto Rico.

board to the Atlantic Ocean. While Radic projects this line of sight into the horizon, Rem Koolhaas, with his Villa dall'Ava pool, aims the trajectory at the metropolis of Paris. In the Chilean example, you swim laps in a concrete box while floating toward the sea, whereas in the other, you plunge in amid trees, only to drift toward the city in the distance.

But instead of surging forward, the pool at Bohlin Cywinski Jackson's Farrar Residence nestles into a forest. Its swimming area's glazed end—literally cutting a section through the water—creates a compelling aquarium effect, with the glass enclosure revealing swimmers only a thin separation away from the earth beneath them.

Even deeper in the ground, the subterranean pool at Jonathan Woolf's Hampstead Heath Brick Leaf House occupies a cavernous setting. Poetically lit by shafts of daylight entering through thin, overhead perimeter openings, this space engages simple means to produce a mesmerizing effect, abstracting the sun's rays into intersecting planes of illumination.

Finally, Nataniel Fuster orchestrates yet another dynamic play of light and water at his Casa Delphin pool in Puerto Rico. Here, small perforations in the ceiling parse rays that the water reflects and refracts, generating an animated dappled effect.

With each of these pools set at its own experiential temperature, the water's fine—so put on that swimsuit, inflate your raft, and come on in. ■





House Taylors Island, MD
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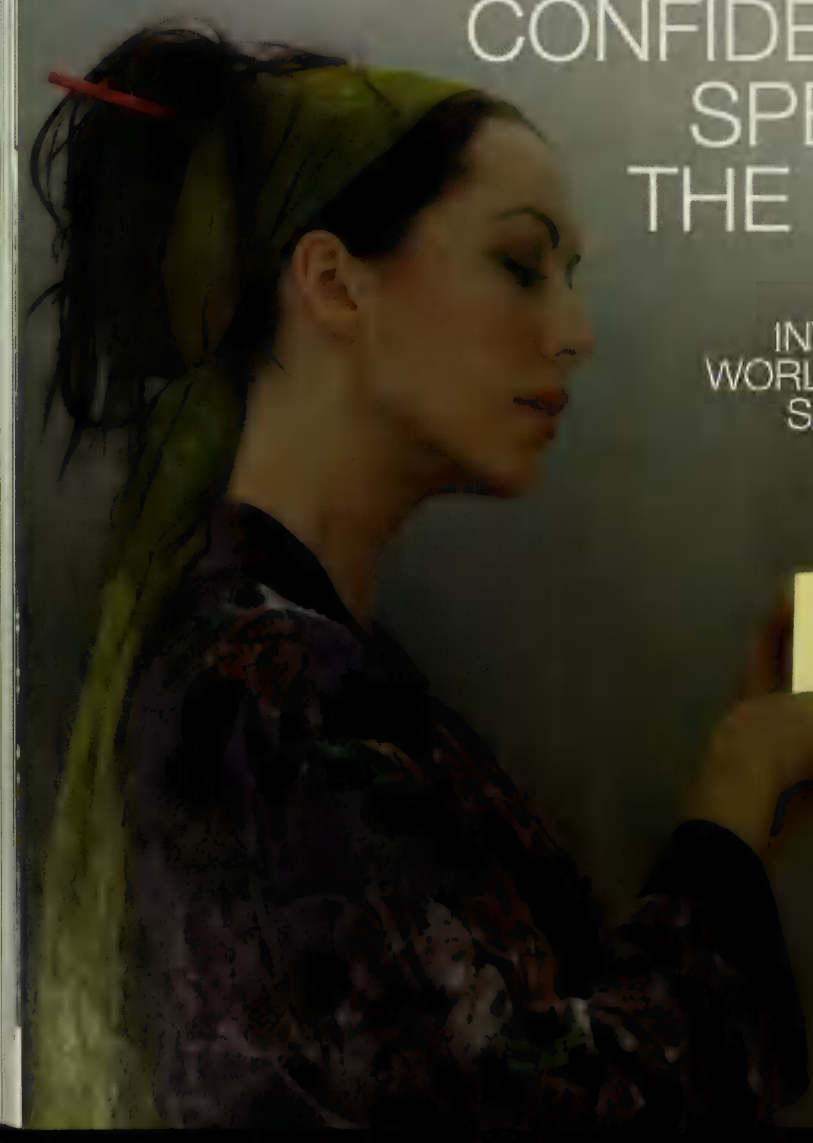
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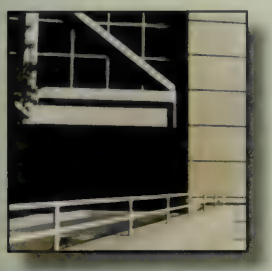
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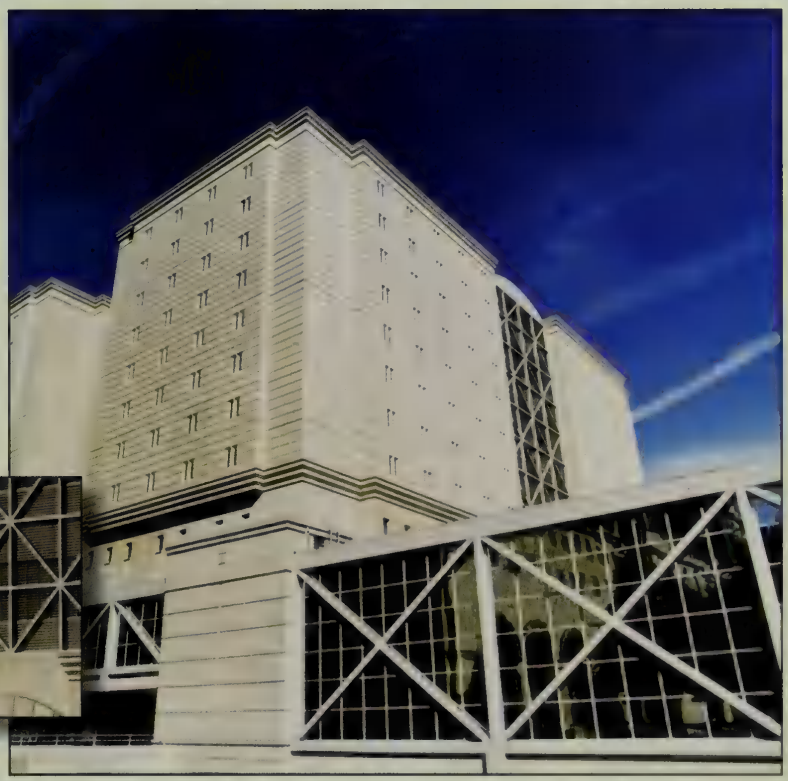
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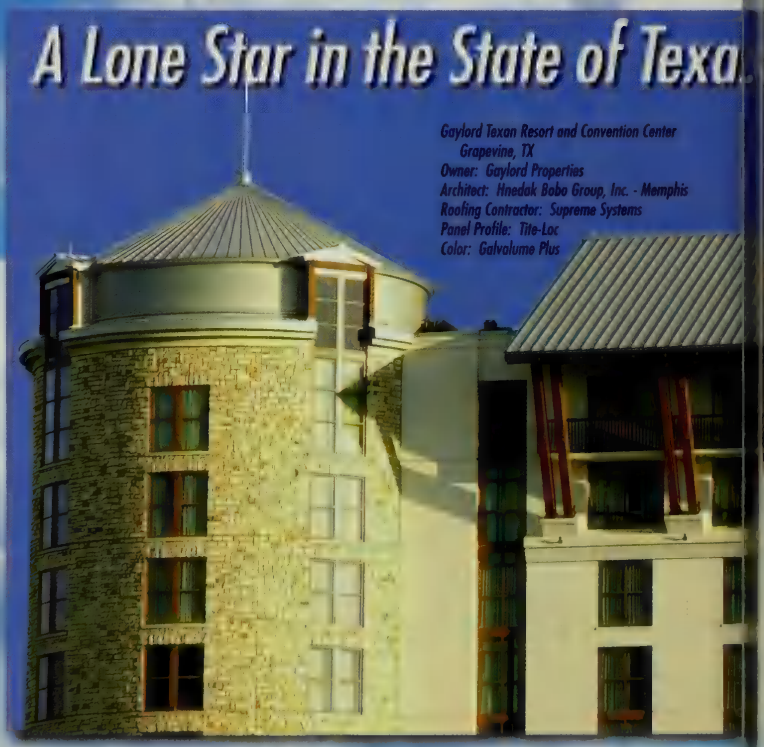
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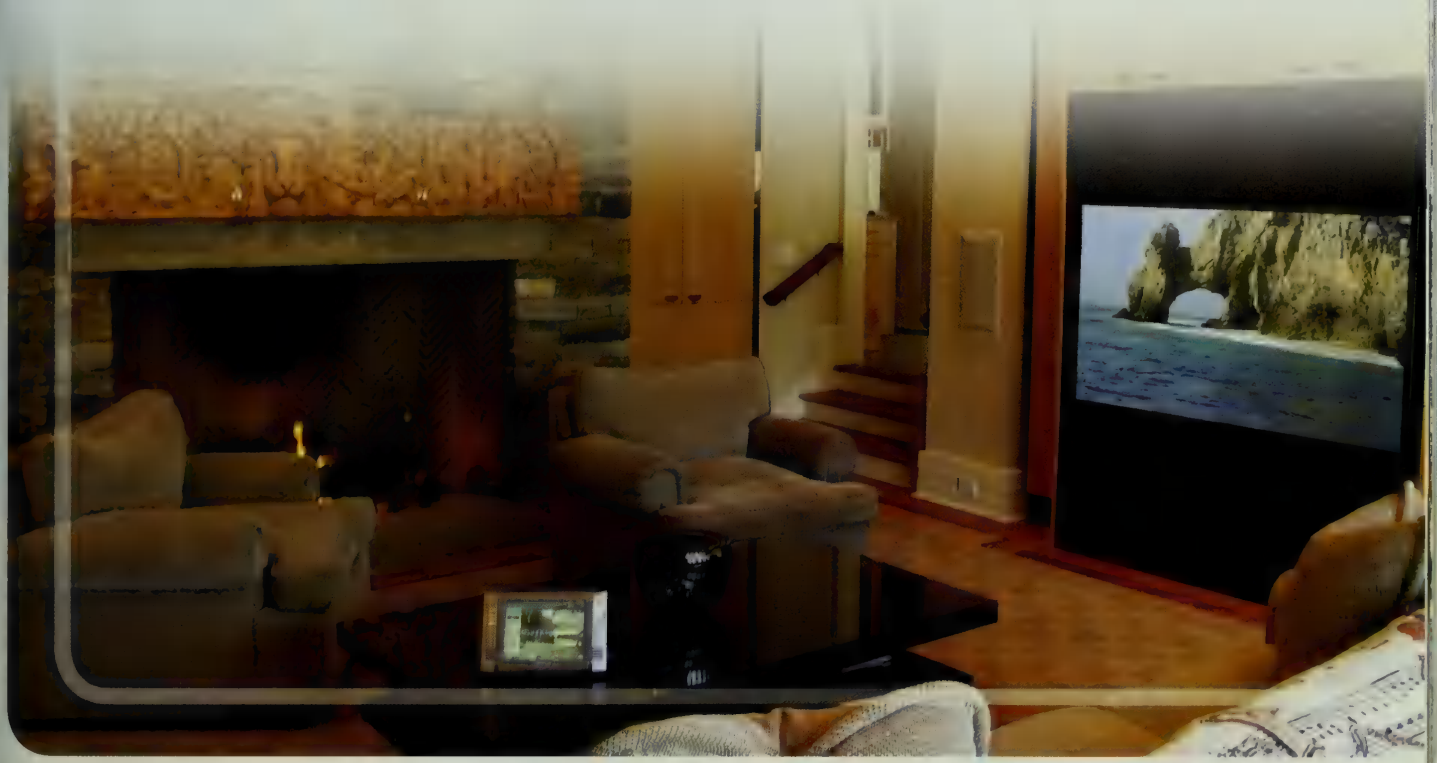
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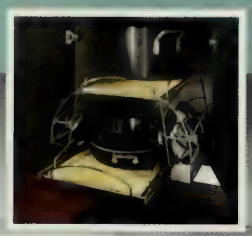
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Record Houses 2007

How to slip a rambling 21st-century dwelling into the narrow bell tower of a 17th-century church by Christopher Wren? Tackling that architectural riddle, nearly as perplexing as the prospect of passing a camel through the eye of a needle, architects Boyarsky Murphy rose to the occasion with a remarkable 11-story "flat," a soaring folly in central London. This great monolithic spike stands in Record Houses 2007 amid six other featured projects. Though no two houses rose from similar circumstances, an extraordinary challenge generated each one.

On Hawaii's Big Island, 80-mile-per-hour winds were the driving force behind Cutler Anderson's Ohana Guest House. Here, a detail—a steel tie anchored to the house's lava-rock plinth to lace down the roof—engendered the whole, a house formed to weather the trade winds.

Meanwhile, a tight squeeze—a densely forested site—inspired TNA's Ring House, in Japan. Preserving the trees, TNA inserted among them a tall, delicate building rising from a minimal footprint. With deftly engineered expanses of transparency, the structure was designed as an idyllic perch for viewing woodland growth.

For a weekend home in New York State, UNStudio's clients, aficionados of Modern architecture, expressed a daunting desire: a new work rivaling anything by Neutra or Schindler. UNStudio responded by reinterpreting the midcentury masters, putting a 21st-century spin (and, literally, a brilliant glow) on that clean-lined aesthetic.

1. UNStudio: VilLA NM
2. TNA: Ring House
3. Randy Brown: Brown House
4. PvE: Casa Poli
5. Cutler Anderson: Ohana Guest House
6. Boyarsky Murphy: Christ Church Tower
7. KieranTimberlake: Loblolly House















Though in most of these cases, client enlightenment helped prime the way for innovation, the owners of the three remaining houses were the architects themselves, who would be living with their experiments.

For Stephen Kieran's weekend home, in Taylors Island, Maryland, he and his firm, KieranTimberlake, set out to test a construction method using entirely prefabricated elements and components, including cartridges with integral building systems that allowed for assembly of the prototypical Loblolly House in just a few weeks. Siting the building gently like a camouflaged duck blind, the team gave it barklike sheathing that echoes the surrounding loblolly grove and pilotis that evoke tree trunks.

In Omaha, Nebraska, Randy Brown's house evolved, by design, as an improvisatory collaboration with the architect's students. Beyond the datum of a traditional program and limited material palette, the project lay wide open to considered invention. Flaunting its process and protesting the Prairie trope's polite conventions of low horizontality in the landscape, the house, nicknamed LAB-or-a-t-ory, remains an energetic work in progress.

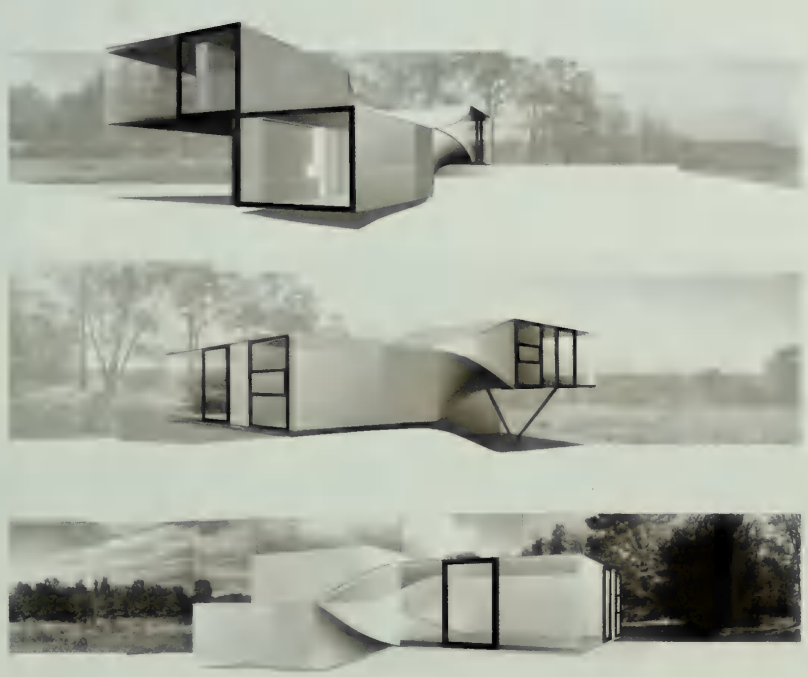
Finally, PvE's Casa Poli, a concrete cube recalling a great porous rock, appears to have grown from the jagged coastal cliff beneath it. The materials and construction methods not only speak to the site, but also accommodate the skills of local laborers. Doubling as an artists' retreat, the house frames multiple, often abstract readings of the rugged landscape—offering myriad thought-provoking, but curiously relaxing views.

Each of our seven featured houses—imaginative solutions—emerged from idiosyncratic sources of inspiration, with constraints and obstacles as colorful and varied as the venues themselves. *Sarah Amelar*

Sited atop a hill in rural New York State, the house appears to rise over the terrain. A long drive leads to the building's east side and carport. UNStudio inserted a lap pool on the western slope.



Joining rectilinear forms with a twist, **UNStudio's VILLA NM**, in upstate New York, captures the landscape in gold reflections



The house morphs into a different form with each elevation, as revealed from its north (top), southeast (middle), and west (bottom) orientations.

By Suzanne Stephens

The client, a New York–based developer with a young family, had a clear goal: a weekend house "as exciting as anything by Neutra and Schindler." With VilLA NM, he got it—in spades. The flat-roofed, taut, planar house in upstate New York, designed by UNStudio, of Amsterdam, both evokes its predecessors and pushes their architectonic qualities into a new realm.

Whereas the Modernist structures of the early-to-mid-20th century emanated from simple rectangles that seemed to float above a grassy lawn or perch on a craggy cliff, something else is going on here. If the south elevation brings to mind Mies van der Rohe's Farnsworth House (1951) coupled with Philip Johnson's Glass House (1949), or the stepped massing to the north harks back to Schindler's Lovell House (1926), then what about that curved middle section? While the original architectural paradigms define the box-on-a-rock category, this villa is a box-on-a-rock-with-a-twist. The singular insertion of what UNStudio principal Ben van Berkel calls a "bloblike moment" causes "a simple shoe-box shape to bifurcate into two separate volumes, one clinging to the northern slope, the other detaching itself from the ground to leave room underneath for a covered parking space." Not only does the new prototype assume a more complex spatial relationship to the land, it creates quite a different interior environment.

The client and his wife, both aficionados of current design and art, encountered the work of UNStudio, headed by van Berkel and Caroline Bos, at the Museum of Modern Art's 1999 *Unprivate House* exhibition. There, the couple (who themselves are very private) were drawn to the display of the firm's attenuated Möbius House, built in Het Gooi, the Netherlands, in 1998, and inspired by the Möbius strip, the single-surface topological model. As van Berkel recalls, "They were fascinated by the way the design wove together living, working, and sleeping activities in a continuous movement."

The client found 2 acres on a hilltop that commands spectacular views of rolling pastures and forests with no other houses in sight. Both he and his wife, who are originally from Russia, welcome changing seasons and wanted to watch turning leaves and falling snow while inside the house. The architects happily responded with what they called a "viewfinder dacha"—a 3,600-square-foot villa, which dramatically embraces the surrounding landscape through expansive glass walls.

But more unexpected are the swooping interior spaces forming the core of the house, which you first detect as you approach the front door and carport, tucked under the cantilevered bedroom wing: Here, the exterior wall of the south end lifts up in a gentle curve to meet the soffit above

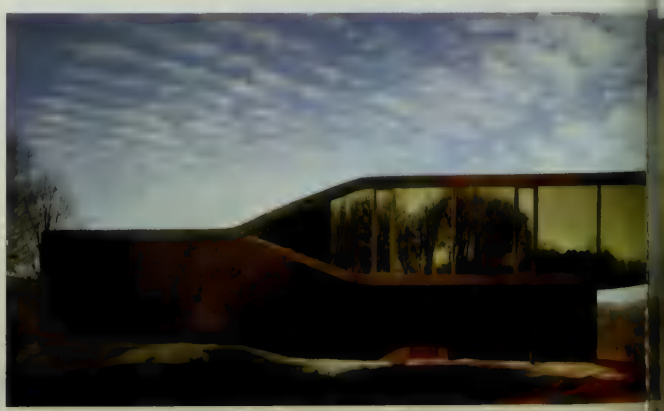
Project: *VilLA NM, New York State*
Architect: *UNStudio—Ben van Berkel, principal; Olaf Gipser, Andrew Benn, Colette Parras, Jacco van Wengerden, Maria Eugenia Diaz, Jan Debelius, Martin Kuitert, Pablo Rica, Olga Vazquez-Ruano, Wouter de Jonge, team*
Engineers: *Robert Silman Associates (structural, HVAC)*
Landscape: *Pouder Design Group*

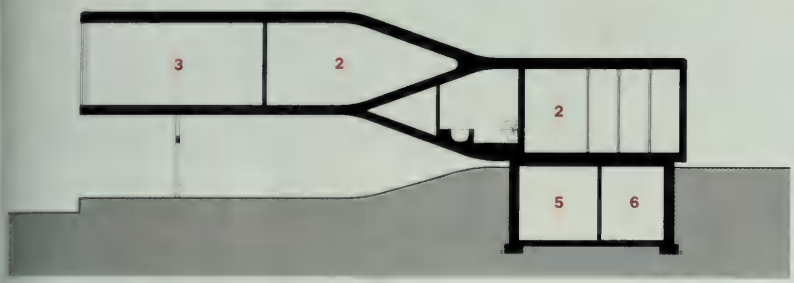
the entrance. Passing through the entry vestibule, you enter the house proper, where a sculptural cooking island in the kitchen leads your eye out through the glass wall toward a pastoral view to the north. But your attention is quickly diverted in the other direction—to the accordion edge of the stair, revealed like a crisply pleated sheet unfurling within cocoonlike white plastered walls. The stairway's contours and splayed treads pull you up to the living room on a level poised 5 feet above the entry. The exuberant spatial effect of this small-scale Baroque circulation device is mesmerizing: You half expect Georges Guétary to pop out and croon "I'll Build a Stairway to Paradise," as he did so memorably in the 1951 film *An American in Paris*.

As you ascend to the white living room, your gaze is again propelled out into the landscape through glass expanses to the south and west. A massive fireplace wall, sheathed in a tightly grained Macassar ebony, defines the space to the east (and conceals structural cross bracing). But then you notice that the fluidly sculptural stair behind you has taken a sharp turn to float up to another half level, where it ends in an onyx-paneled bath and adjoining master bedroom.

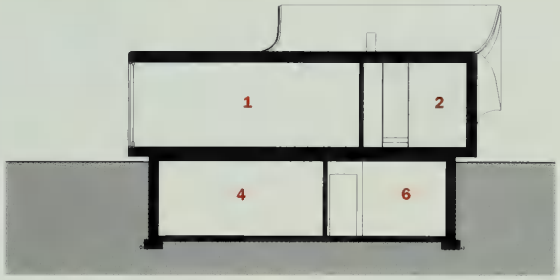
From this landing, you look down on a twisted vortex of line and space that van Berkel describes as a "kaleidoscopic dynamism, where mobility and materiality come together." If there were a remake of the 1971

Gold-tinted glass dematerializes the house by reflecting trees and sky, as on the south face (above). On the east side (below), beneath cantilevered bedrooms, the profile of the sprayed-on, earth-brown concrete wall lifts over the entry.





SECTION A-A



SECTION B-B

0 10 FT.
3 M.

1. *Living area*
2. *Bedroom*
3. *Master bedroom*
4. *Guest*
5. *Mechanical*
6. *Bath*

Prefabricated contoured steel panels (section, above) form a clam-shaped bedroom on one level and a bath underneath. The bedroom's profile is expressed on the exterior of the east elevation (below), near the V-shaped columns.



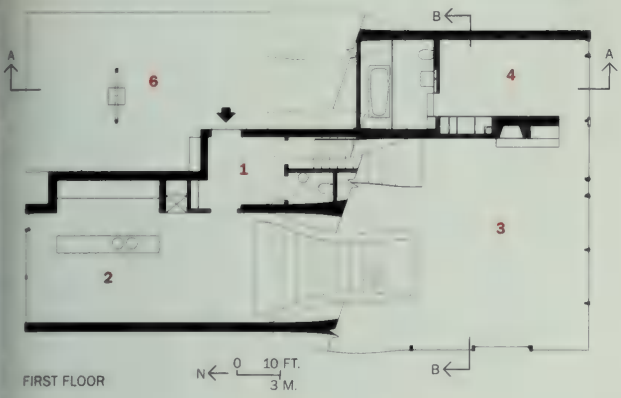
film *Diamonds are Forever*, this stair and living room should be the place where the Amazonian bodyguards cavort with James Bond, rather than John Lautner's Elrod House (1968), which was the setting in the original film.

On the upper level, another *coup de théâtre* awaits, a bedroom for the couples' son that takes the form of a clam shell with a sloping ceiling and floor lined in dark-brown African wenge wood. The bed—not yet installed—will project as a flat plane from the wall and floor. (The girl's bedroom, more conventionally configured, comes with an amoeba-shaped bathroom.)

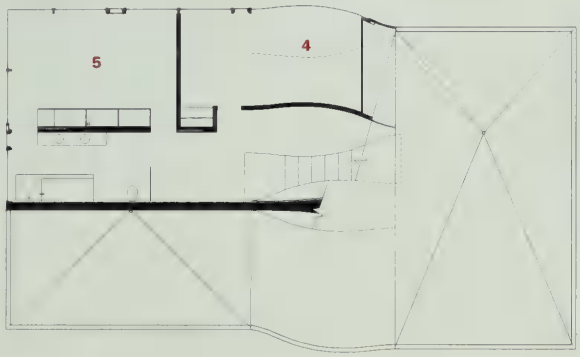
How does a contractor go about building such a structure, especially where twisted and curved surfaces meet planar volumes? "Not easily," anyone familiar with U.S. builders' predilection for orthogonal wood-frame houses would reply. Using computer modeling, van Berkel and his team, which included Robert Silman Associates as the structural engineers, went back and forth with several variations on the parti to come up with a design that could be realized by a local builder. Van Berkel, used to European construction techniques, had figured that much of the house, especially the curvy core elements, would be concrete; the rest, steel. While he and the client found a local builder game enough to take on the job, the methods turned out to be more ordinary: A hybrid structure of steel studs and framing elements along with wood rafters, joists, and studs, plus a

From the entrance level, one can ascend the sculptural stairs to the living room (above) or enter into the kitchen/ dining area (below).





FIRST FLOOR



SECOND FLOOR

1. *Entry vestibule*
2. *Kitchen*
3. *Living*
4. *Bedroom*
5. *Master bedroom*
6. *Parking*

UNStudio's Ben van Berkel wanted the "box to meet the blob" (above) in this house, as realized on the exterior. The strongly sculptural stair, with a sharply pleated profile (below), loops up from the ground floor to the living level and then to the bedroom level.





The voluptuous, plastered stair core twists up to the bedroom level, where the glass-walled master bath opens up to the view.

concrete deck and foundations, give this house its zoomy, 21st-century look.

Five standardized, prefabricated, single-curved steel panels (instead of poured concrete) lend the interior spaces their distinctive shape and helped keep costs down. At the same time, the steel in the cantilevered bedroom floor (partly supported by the carport's V-shaped welded-pipe columns) and the wrapping of the curved panels around metal-pipe columns turned this into a very customized construction process.

As for the exterior walls, concrete is sprayed over the frame and painted a rich, earthy brown, with certain areas filled in by translucent polycarbonate panels. The glass window walls are tinted gold, rather rare in noncommercial buildings. "We wanted the house to pick up the color of the leaves," says van Berkel. "I experimented with different kinds of glass, looking for one that would mirror the landscape," he explains. Although gold reflective glass, which dominated sunbelt skyscrapers in the 1970s, went the way of the leisure suit, it reveals van Berkel's bravado—or his romanticism: "Gold seems also to be most like the sky at dusk."

Where the house differs from so many of its early Modernist predecessors is in the way it doesn't try to meld with the landscape. Instead of hunkering down in the earth *à la* Frank Lloyd Wright, or merging interior and exterior spaces through sliding glass walls and outdoor decks, the living quarters appear sealed off in a gold-and-brown envelope (though there are vertical operable windows). The house presents itself as an autonomous, high-design object, in the spirit of Le Corbusier's Villa Savoie (1929).

The voluptuous interior, combined with the taut rectilinearity and reflectivity of thin, flat, exterior surfaces; the Miesian use of luxurious materials; and the Corbusian detachment from the landscape speak of the architects' knowing sense of history. Their take on it, however, seems to demonstrate a certain Dutch madness, not unlike Rem Koolhaas's Mies-on-meth design for IIT's Campus Center [RECORD, May 2004, page 122]. In the past, van Berkel and Bos have taken risks, culling ideas from the past and transforming them for the present, as in their double-helix Mercedes-Benz Museum in Stuttgart, Germany [RECORD, November 2006, page 126], for which Wright's Guggenheim Museum provided the DNA.

At VilLA NM, the firm's sophisticated "both/and" approach boldly manifests itself through investigations of the box with the blob, commercial with domestic materials, and high with low cultural allusions. Having an adventuresome client meant UNStudio could catapult the design of the Modern house into the 21st century. ■

For Sources, go to page 148, and Projects at **archrecord.construction.com**.



The thin vertical lines of the mullions and cables along the accordion-pleated stair and the soft curves of the soffit and floor (right) lend the house its ethereal quality.



By Naomi Pollock

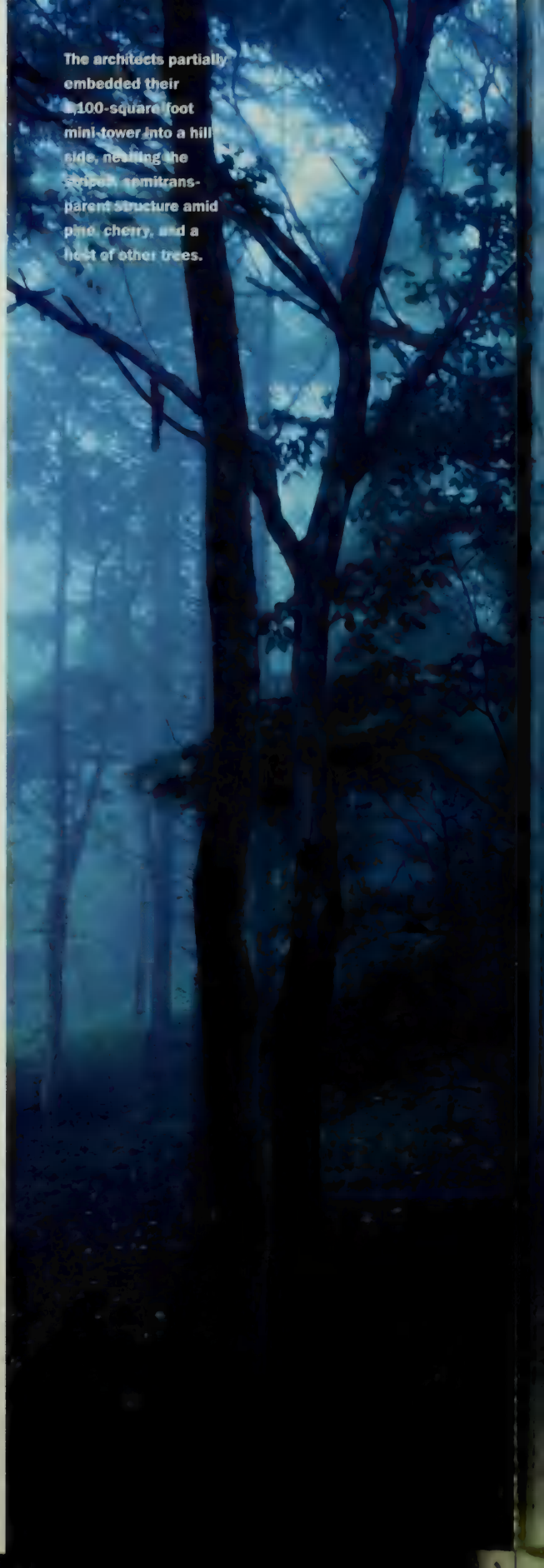
A product designer with a young family was so taken with photos of the Ring House that he bought the place before ever visiting it. "Even the developer was shocked," exclaims Makoto Takei, a principal of Takei-Nabeshima-Architects (TNA), the architects who designed the striking mini-tower on spec for a planned community in the town of Karuizawa, some 185 miles northwest of the Japanese capital.

As an upscale weekend enclave, Karuizawa may be Tokyo's equivalent of New York City's Hamptons (minus the beach), but the developer had nonetheless failed repeatedly to sell the raw land on which Ring House now stands. Among the least desirable of the community's 318 lots, the property forms a steeply sloped valley, bound at its higher end by a road on three sides. Unlike many of the other sites, this one offers no views of snow-capped Mount Asama, and its southern exposure—the most precious asset of any Japanese home—faces the rear of someone else's house. The developer, hoping his luck would turn if he marketed the land together with a house, commissioned TNA, a three-person firm, whose two, 30-something principals had previously worked at Tezuka Architects [RECORD, December 2002, page 98]. The developer, a youngster himself, had seen TNA's work published in a magazine and was keen to give the newly minted design team a chance to build.

"Despite the flaws, we thought it was a great site," recalls TNA principal Chie Nabeshima. The ⅓-acre property was not merely large by Japanese country-house standards, but also dotted with pine, cherry, and a host of other trees. Besides, the architects were confident they could make the slanted ground plane work to their advantage. Though code-stipulated setbacks defined the lot's buildable area, the forest guided the placement of the structure. "We cut down only three trees," boasts Takei, "the fewest number of any house in this entire development."

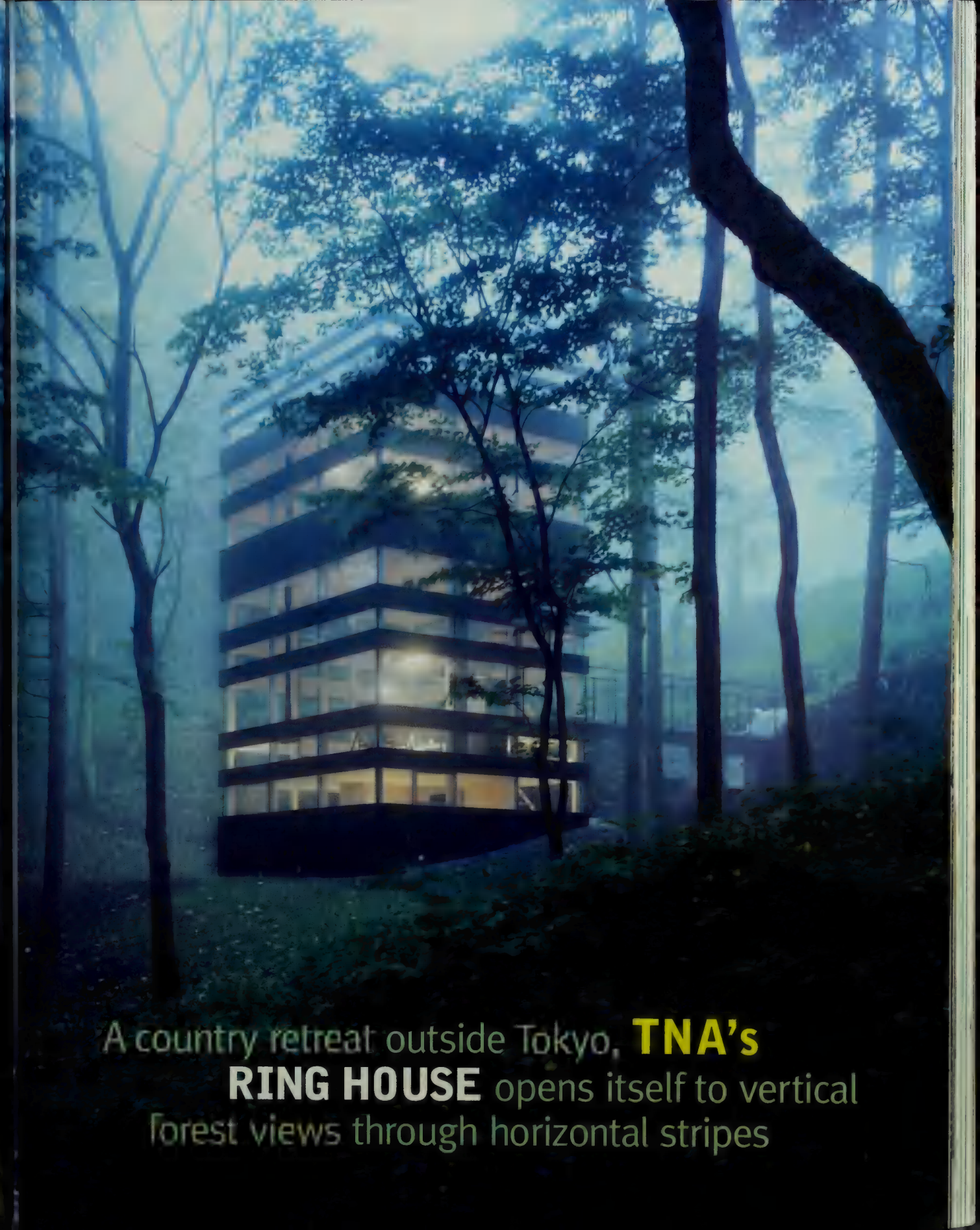
Naomi Pollock, RECORD's correspondent in Tokyo, is the author of Modern Japanese House *(Phaidon Press, 2005).*

Project: *Ring House, Karuizawa, Japan*
Architect: *Takei-Nabeshima-Architects (TNA)—Makoto Takei, Chie Nabeshima, principals; Ryousuke Fujitani, assistant*
Engineers: *ASA—Akira Suzuki, Yuuki Kuroiwa*
Lighting: *Lighting Architect & Associates—Masahide Kakudate*
General contractor: *Niitsu-gumi*



The architects partially embedded their 1,100-square-foot mini-tower into a hillside, nestling the sculptural, semitransparent structure amid pine, cherry, and a host of other trees.

PHOTOGRAPHY: © DAICI ANO



A country retreat outside Tokyo, **TNA's RING HOUSE** opens itself to vertical forest views through horizontal stripes



The horizontal stripes, which form the tower's structural beams, are clad in charcoal-colored *yakisugi*, a singed cedar.



1. *Doma*
2. *Tatami guest room*
3. *Dining*
4. *Living*
5. *Bedroom*
6. *Bath*

Some trees stand just 3 feet from Ring House's outer wall. This proximity was intentional, as the architects envisioned their building—with pronounced verticality and many vantage points—as a perch for appreciating the woodland growth. "You need various heights to truly enjoy trees," explains Takei. Yet code permitted a building only 33 feet high, with two stories plus a basement.

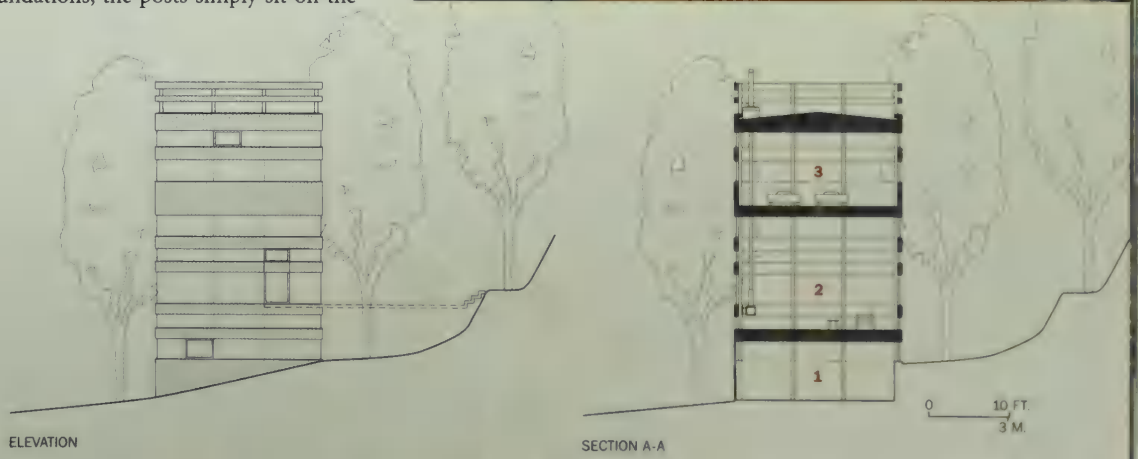
The 13-foot-high living area becomes dappled (and striped) with sunlight while opening up to tall views of the surrounding trees (right).

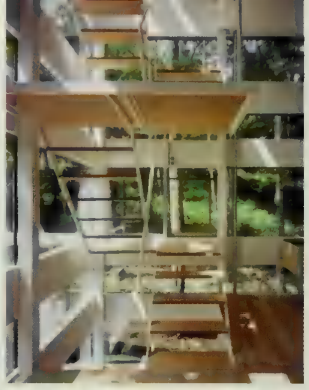


So they created a mini-tower at the maximum height, skinned in alternating bands of wood and glass—an irregularly striped sheath that evenly balances transparency and opacity, acting more like a screening filter than a bona fide barrier. As sunlight floods into the interior by day (or electric illumination glows from within the volume by night), the wrapper allows views straight through the house. With three 20-foot-square floors, including a basement partially embedded in the hillside, the architects provided entrances at the lowest and middle levels. In the basement, they put the *doma*, an all-purpose entry vestibule-cum-storage area, and a tatami-mat guest room; on the first floor, a combined living/dining room and kitchen; and on the second, the family bedroom (since pre-elementary-school children in Japan frequently share their parents' bed), with additional steps rising to the bath, where a ladder ascends to the roof deck.

Strategically placed to protect the owner's privacy, the obi-like belts of charcoal-colored wood range from 49 inches wide, to conceal sleeping and bathing areas, to 11 inches wide, for handrails on the roof. The 4.5-inch-thick bands enclosing the building required at least 12 inches of vertical depth, since they double as glue-laminated structural beams. Made of Oregon pine, these horizontal members are painted white on the inside, clad on the outside in *yakisugi*—a durable and subtly grained singed cedar, traditionally used for everything from temples to teahouses—and bolted to 12 slender columns, evenly spaced along the house's perimeter. Also of wood painted white, each column measures 5 inches square, but soars a staggering 34 feet to the top of the roof railing. Instead of rising from buried foundations, the posts simply sit on the

1. *Doma*
2. *Living*
3. *Bedroom*





basement floor, transferring the loads laterally via bolted connections to the concrete wall that anchors the house. "Usually columns and beams are in the same plane," says Takei. But Ring House's construction gives priority, from the exterior to the horizontal stripes.

Unlike homes with conventional outer walls, the 1,100-square-foot Ring House has everything, from kitchen counters to curtain rails, attached to the wood bands. Even the custom-designed wood-burning stove hovers above the floor, hanging from one of the timber

TO MAKE POTENTIALLY DISTRACTING VERTICAL ELEMENTS RECEDE VISUALLY, TNA PAINTED THEM SILVER OR BLACK.

ribbons. Though potentially distracting vertical elements, such as drain pipes and downspouts, were unavoidable, the architects helped them recede visually by making them silver (or black, as with the flue) and confining them to the 5 inches, at the building's perimeter, defined by the depth of the slender columns.

The horizontal wood stripes not only perform structural and masking roles, but also function as window sashes. Composed of two fixed sheets of glass with an insulating air pocket in between, the bands of window sit in grooves carved into the edges of the timber panels. Thin metal mullions and mitered corners join the large panes. For ventilation, each elevation has two subtly framed, operable windows. Explaining the small number of openings, Takei says, "With the building shaped like a chimney, cool air circulates naturally."

Ring House's limited contact with the outdoors may seem a bit extreme for a country home, and the architects' strict prioritization of the horizontal banding does border on the obsessive. But at the same time, this house balances opacity and transparency with exquisite conceptual purity, playing on—and giving form to—*wa*, the Japanese word for both "ring" and "harmony." ■

For Sources, go to page 148, and Projects at **archrecord.construction.com**.





With constant views out to the forest, and the horizontal bands masking out discrete areas of privacy, the family bedroom opens onto the bath area (above).

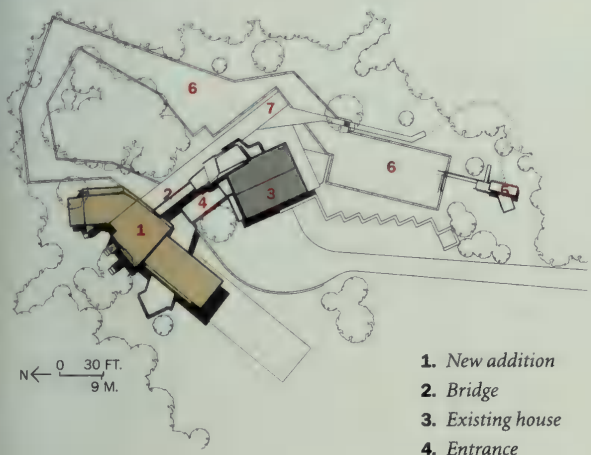


Most of the house's fixtures and components—including the cantilevered, custom wood-burning stove (opposite, right top) and the stair landings (this page and opposite, top)—fit neatly within the horizontal bands of the composite structural beams/exterior cladding.



Brown plans to use the cantilevered, 20-foot-high "gallery," or "big cube," for entertaining guests. His sons' rooms are set back, below it.

Randy **Brown** draws a line in the sand for Nebraska architecture with his family's **BROWN HOUSE**, a labor of love in Omaha



1. *New addition*
2. *Bridge*
3. *Existing house*
4. *Entrance*
5. *Children's tree house*
6. *Garden path*
7. *Deck*



A bridge connects the gallery living space to the existing house, while a lower-level hallway in the new section provides the main entrance.

By Russell Fortmeyer

Randy Brown, FAIA, treats Nebraska architecture the same way Conor Oberst treats its music. Oberst, otherwise known as Bright Eyes, sings "No one ever plans to sleep out in the gutter/sometimes that's just the most comfortable place" in his 2005 song "Road to Joy," and you can't help but sense the same theme of turning circumstance into opportunity, with a slight wink to its consequences, unfolding in Brown's massive Omaha house perched among trees on a hilly 10-acre lot north of the city. You won't see another house like this 12-gauge-hot-rolled-steel-clad landmark in Omaha—if not the state—guaranteed.

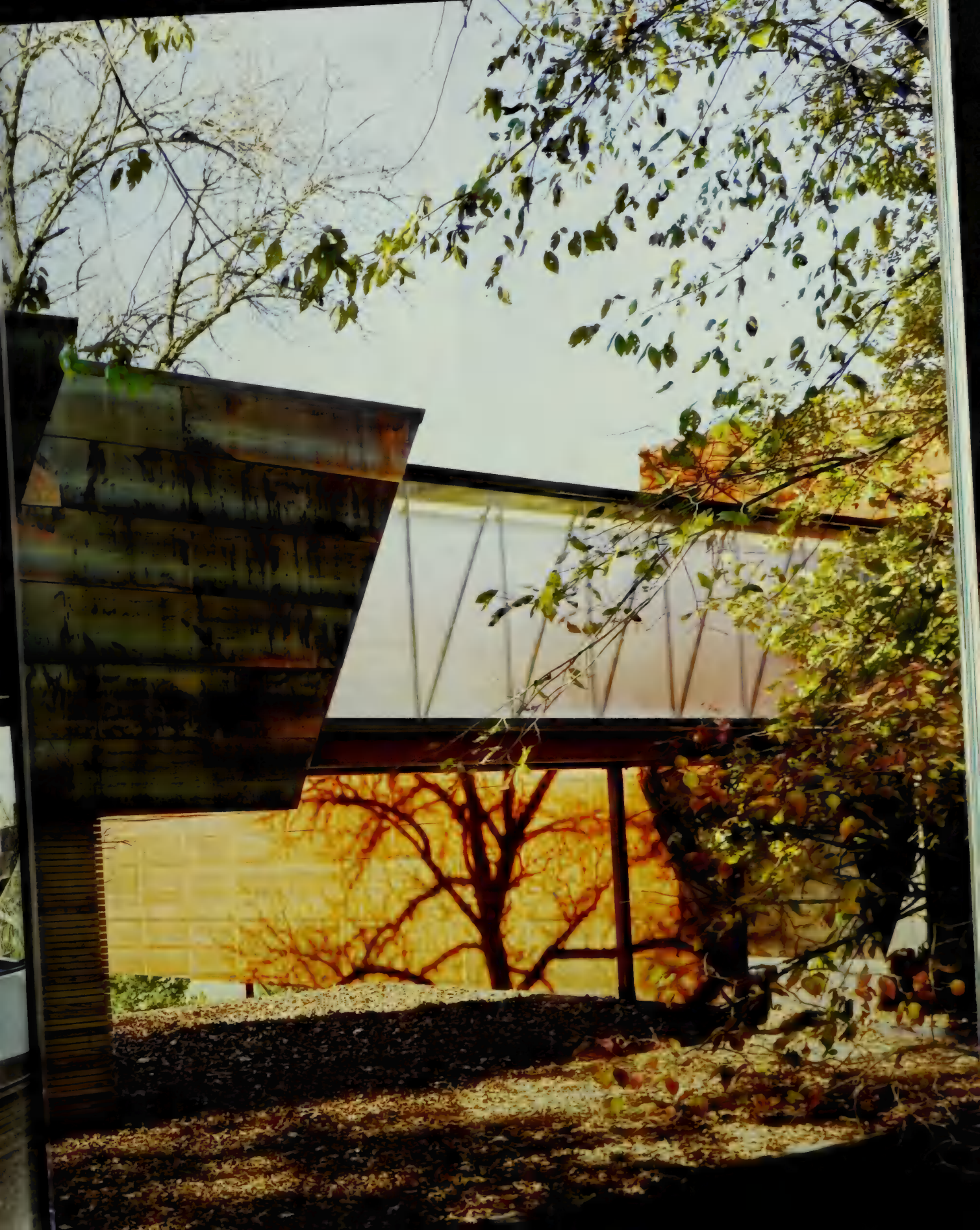
Once you drive the gravel road to the back of the native prairie site, the main form of the house looms over you with what Brown calls the "big cube," or "gallery," which contains the living room in an oversize extruded steel tube, split in two, peeled back in some locations to reveal windows and punctured in others to allow new hallways to connect with an existing house. These few sweeping figural gestures announce the architect's ambitions as clearly as anything: Here, architecture is a closed system of continuous materials and program for the architect to manipulate. A minimal set of materials—steel, drywall, conventional lumber, glass, plastic—and a conventional program (including four bedrooms, five bathrooms, a living room) freed Brown to make the new structure's organization less cohesive, more improvisatory.

And so, beginning in 2003, he took his preparatory drawings and concocted the construction of his family's house over three years. That ad hoc impulse also fed the summer work programs Brown has orchestrated since 1998 for architecture students from a handful of colleges. (Prior to this house, which he nicknamed LAB-or-a-t-ory, students contributed to his other Omaha projects.) Adventurous kids, receiving pay and academic credit, spent a few weeks each summer drawing before descending *en masse* on the house to experiment with designs and ultimately fabricate them. This breezy group effort—an alt-rock update on the Frank Lloyd Wright Taliesin camp—led to many happy discoveries, plus craftsmanship rivaling houses that cost much more than the $495,000 paid for this one of 5,100 square feet.

Project: *Brown House (or LAB-or-a-t-ory), Omaha*
Architect: *Randy Brown Architects—Randy Brown, FAIA, lead designer and construction manager; Nate Miller, Ted Slate, Dirk Henke, John Gallup, Dale Leubbert, Brian Hamilton, Ian Thomas, Alex Jack, TJ Olson, Joe Vessel, summer crews (partial list)*



The main entrance straddles the new structure's entry hall and the bridge connecting to the existing house. The stairwell presents a choice – Climb up to the public levels of the house and across to the gallery or continue below to the childrens' floor, tucked under the "red cube" and capped with a green roof.







SECTION A-A

0 10 FT
3 M.



UPPER FLOOR

N 0 10 FT.
3 M.



MAIN FLOOR



LOWER FLOOR

1. *Gallery*
2. *Playroom*
3. *Bridge*
4. *Office*
5. *Master bedroom*
6. *Master bath*
7. *Guest room*
8. *Bar*
9. *Open to below*
10. *Deck*
11. *Guest suite*
12. *Toy room*
13. *Child's bedroom*
14. *Hallway to existing house*
15. *Mechanical*

Connecting the existing house to the addition (above), the bridge, enclosed in frosted-plastic glazing, offers forest views through a cantilevered portal.

"We redesigned every piece before we built it," Brown says. "The building department didn't look at the drawings, they looked at what was there." So did Brown. When he bought the site in 1999, it came with an unexceptional two-story 1950s yellow ranch-style house that would suffice as a home for himself, his wife, and two young sons until he was ready to build the house he really wanted. Although he plans to remodel it, the yellow house, now in use for its kitchen, connects to the new structure via two hallways: a bridge from the main living floor to the "big cube" and an on-grade hallway leading to the children's bedrooms, a playroom, and a guest suite, all on the lower level, and a rear stair up to the master suite, on the third floor. You enter this bipolar house through a lower hallway that shares a foyer with a staircase leading up to the bridge. From this central pivot point, the interior splays into an almost bizarre configuration of spaces, with an uncannily disjointed plan, that has the effect of decentering you as you walk through it. The project defies simple reading, laying bare the inadequacies (and frustrations) of a mere description of a processional experience. Understanding the house is best left to reading its plan and section (or better yet, its model, which more than anything guided the house's evolution). Like Peter Eisenman's deconstructed house projects, Brown's building exposes the subjective conditions of what we might call *houseness*, but unlike Eisenman, who largely concerned himself with deliberate misreadings of architecture's conventions as deployed in residential work, Brown uses these fissures in understanding to implement a schema of intricate, resourceful craft. Many of his details, such as wood-slat screens surrounding the children's bedrooms, emerged from intensely focused work by his students—the roadies to Brown's rock god.

Unlike an academic architecture of overconsidered, underproduced gimmicks, Brown's idea for the house—its system—was allowed to



bend to the improvisatory will of his team of constructors, providing a nuanced critique of how we actually produce architecture today. And it opened Brown to hidden opportunities.

In simplest terms, the exterior functions as a single-skin container. All seven levels of the house connect through various vertical and horizontal passages, although the structure officially qualifies as having only three floors and a mezzanine (as if it matters). Once the steel framing was complete, Brown recognized more possibilities for spatial invention. The master bedroom, originally planned as one level, spread out with its sleeping area above and a study on top of that, leaving the bathroom to itself with a double-height ceiling over the tub—a void created by pulling the bedroom floor away from the outer wall. The office's wood desk plate distorts to become the headboard of the bed below. "*Continuities,*" Brown would say. All three areas of the suite take advantage of northwest views through giant steel-framed windows (fabricated in situ) into a preserved forest of walnut, oak, and poplar trees.

Whereas the master bedroom responds vertically to the site, the double-height living room (or gallery), encased within the big cube, on the fourth level, stretches horizontally toward the prairie horizon. A wet bar emerges as a small mezzanine, its one-by-two wood slat surface integrated into a steel staircase beneath it. Both the master suite and gallery adhere to Brown's minimal material palette—slatted wood on the bar, maple on the floors, acres of white drywall and glass—shifting the focus to the views out.

While most of the individual rooms share this serene, almost contemplative use of the house's forms and materials, each circulation area develops a different spatial and material logic. Three-quarter-inch, frosted-plastic glazing wraps the bridge connecting the gallery's mezzanine to the existing house. The folded-steel stairwell down from the gallery to the chil-



The gallery (above) includes a mezzanine bar (right) clad in wood slats. Perimeter vents for heating and cooling the gallery mimic the slight reveal between the walls and ceiling.





The master suite forms three levels (left), with glazing elements and the desk-cum-headboard device visually unifying the space. The children's bedrooms (above) are concealed behind wood slats.

dren's rooms, at grade, spills through a contorted screen of more wood slats (Brown estimates nearly 1,000 of them throughout). The slat aesthetic repeats itself at a secondary stair off the entry hall, setting the tone for the lower floors with a ceiling of exposed, intricately framed two-by-twelve boards with conduits and piping neatly hidden between the roof's sheathing and an upper layer of insulation and rubber. This slotted ceiling continues into the large playroom, which features a concrete floor with a radiant system that Brown says heats most of the house through simple convection currents.

Manipulating the conventions of architecture is the contemporary architect's basic right, if not the core of many an innovative practice. But where do you start—or end? Why does a nest of stacked two-by-four boards, constructed of leftover scraps, encircle the toilet in one of Brown's bathrooms (all the more jarring given the smoothness of the nearby light-gray-and-white Carrara marble sink and shower)? Brown's answer: His system, with its open-ended process, allows for such unexpected gestures. He says his sons have the house exactly right: It's a playground. Omaha, if not architecture in general, needs these "playgrounds," these states of frenzy. Here, a simple material palette openly disguises a plan that obliterates the tropes of traditional Prairie architecture, ever so politely and horizontally nestled into the landscape. Like Oberst's music, this is an architecture of protest—messing with convention by defining a system only to resist it—infected with just enough of Brown's early experience in Los Angeles, as one of the late Frank Israel's students at UCLA, to hit Omaha's ground running. Oh, what the neighbors must think. ■

For Sources, go to page 148, and Projects at archrecord.construction.com.

Brown and his crew welded the steel main entrance stair themselves (right). Visitors can choose between ascending these stairs to cross the bridge to the gallery or taking the on-grade hallway to the lower level.





Atop a jagged cliff in coastal Chile,
Pezo von Ellrichshausen sets
CASA POLI, a great concrete cube,
evoking a block of porous stone

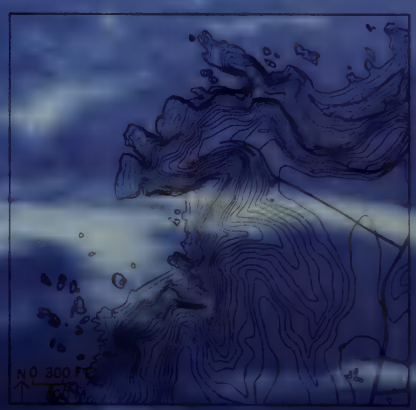
By Diana Lind

Casa Poli is only a 30-mile drive from Chile's second-largest city, Concepción, midway down the country's coast, but it feels perched at the edge of the world: a place with limitless ocean views, a soundtrack provided by wind and pelicans, and no other human beings within eyeshot, except for local fishermen in boats, hundreds of feet offshore. Venture 45 minutes outside any major city in the United States, and you're in an exurban tangle of highways, but here, half the roads remain unpaved. In the States, a weekend house such a quick jaunt from the city would mean high prices for land and construction, yet here, Pezo von Ellrichshausen Architects (PvE) built almost 2,000 square feet for $63,000 dollars.

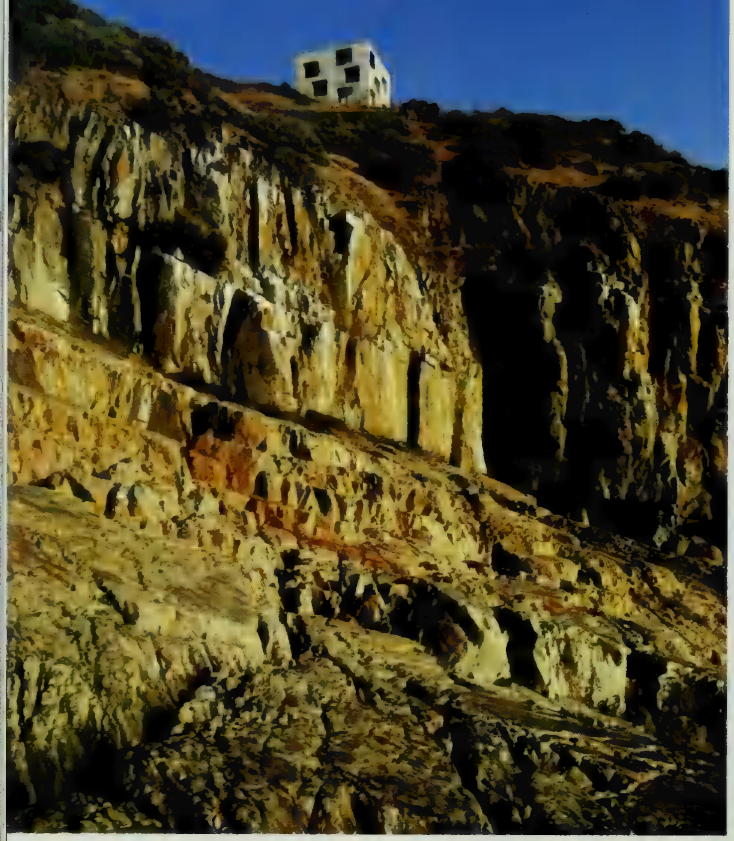
But if the Coliumo Peninsula, on which Casa Poli rests, sounds too idyllic, the truth about its development should be told: On the bay side of this landform, construction cranes are busily erecting weekend retreats for city residents. Only the Pacific Ocean side has remained largely uninhabited, and mostly because many people consider its terrain less suitable for building. Of course, that could change now that word has gotten out about Casa Poli. (The house garnered first prize at the

Diana Lind is New York–based writer. Her forthcoming book on new architecture in Brooklyn will be published by Rizzoli in 2008.

Project: *Casa Poli, Coliumo Peninsula, Chile*
Architects: *Pezo von Ellrichshausen Architects (PvE)—Mauricio Pezo, Sofia von Ellrichshausen, principals*
Engineer: *Cecilia Poblete*
Lighting: *Alberto Silva*
General contractor: *PvE*



Perched atop a 200-foot cliff, the house faces the Pacific Ocean.





The concrete house echoes the cubic forms of the granite cliff beneath it (top). Windows, placed asymmetrically, are set back for protection from the elements (bottom). Bedroom windows face into the double-height living space and to sea and sky beyond (opposite).

2006 Santiago Biennale, where its architects, Mauricio Pezo and Sofia von Ellrichshausen, a married couple, won the Best Young Chilean Architects Award.)

The pair found this piece of pristine cliff through Pezo's friend and mentor, artist and writer Eduardo Meissner and his wife, sculptor Rosemarie Prim. Though the property's value had appreciated in recent years, the seller wanted to divest herself of the 2.5-acre parcel for the same price she'd paid for it long before Chile's economic boom, hoping her generosity would spur the buyers to build something more meaningful than the cookie-cutter, cast-concrete spec houses abounding elsewhere on the peninsula.

The two couples bought the land together in 2003 and at first considered erecting two houses there, but over the course of several dinners realized that neither pair would be on-site enough to warrant double construction. As they discussed the program for a single house, they began to imagine the structure serving not merely themselves, but also a larger community. "Once we decided not to build two houses," recalls von Ellrichshausen, "we knew we needed to do more and give something back to this area." They agreed to turn the house into an artist's residency during the off-season, when neither couple would be using it.

For Pezo and von Ellrichshausen, whose small, five-year-old practice "started the minute we met," jokes von Ellrichshausen, the challenge was to create a house that felt domestic and comfortable, but might also inspire the abstract thinking of artists. Budget, or lack thereof, was a valuable constraint in determining the material palette.

Concrete—cheap, reliable, and low maintenance—served PvE's needs, with the toughness to fend off formidable elements. At this site, the sun beats down almost 15 hours a day at the peak of summer, and a strong, southerly wind races continually over the cliff year-round. (A recent storm tore apart a neighboring prefab house.)

After considering siting the house some 300 feet back from the precipice that drops 200 feet down to the ocean, the architects picked a more dramatic and less sheltered spot: on the parcel's flattest area, near the land's edge, with uninterrupted 360-degree views. Even if the surrounding tracts, where cows currently graze, are ever developed, they reasoned, this high vantage point would still claim unblocked views.

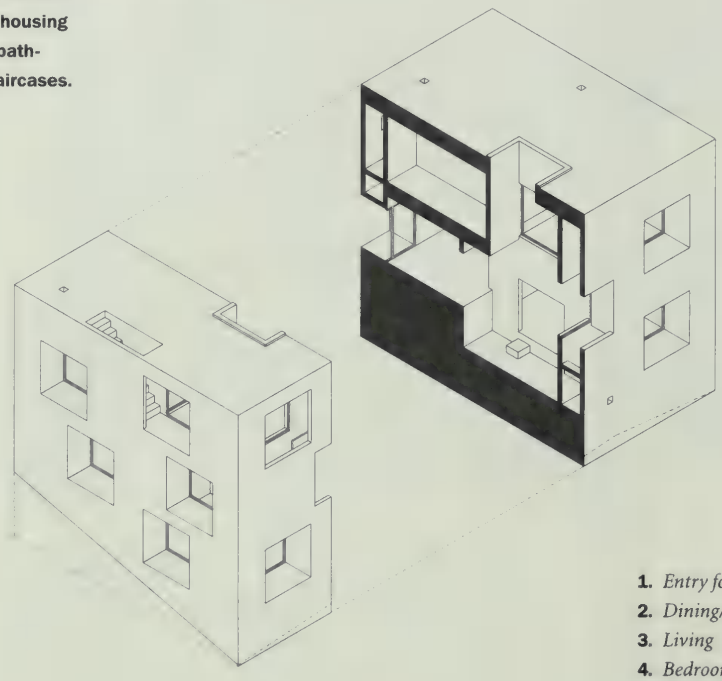
Of course, the landscape was just one factor influencing the architectural decisions. In a region where shingled salt boxes and concrete shacks typify the previous generation of weekend homes, a glitzy, high-tech residence would have seemed glaringly out of touch with the vernacular architecture and social mores. Instead, a local building crew—wielding one small mixer, four wheelbarrows, and scant background in Modern architecture—completed the cubic, 1,937-square-foot, board-formed concrete house in 18 months.

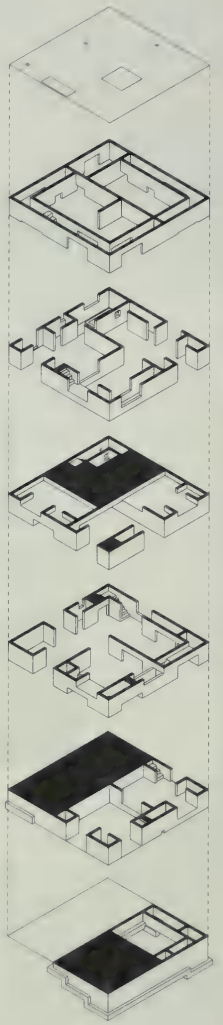
The formwork left the concrete with a rough-hewn surface that gives the otherwise spare construction a textural richness—a handsomely imperfect, striated motif. PvE found inspiration from various sources, including the starkness of Adolf Loos's work and, Pezo recalls, from objects that "aren't consciously designed." From a distance, Casa Poli conveys a distinctively less-than-deliberate quality, evoking an ancient ruin. But the intent of the architects soon reveals itself in the way the structure sits atop its granite peak, as if its ideal, cubic form had evolved from the cliff's jagged shards.

The house, taking its name, Poli, from the Greek for "many," features repeated shapes. Its 20 windows, all square and mullionfree, vary

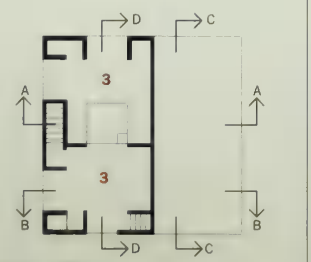


Viewed from the outside, the staggered windows hint at the varied split levels of interior space (below). The floor plans (bottom) show the hollow perimeter housing closet space, bathrooms, and staircases.





1. *Entry foyer*
2. *Dining/kitchen*
3. *Living*
4. *Bedroom*
5. *Terrace*
6. *Skylight*
7. *Open to below*



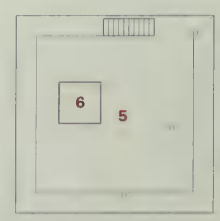
LEVEL 1: LIVING



LEVEL 2: MAIN/ENTRANCE



LEVEL 3: SLEEPING



LEVEL 4: ROOF TERRACE



SECTION A-A



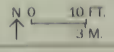
SECTION B-B



SECTION C-C



SECTION D-D

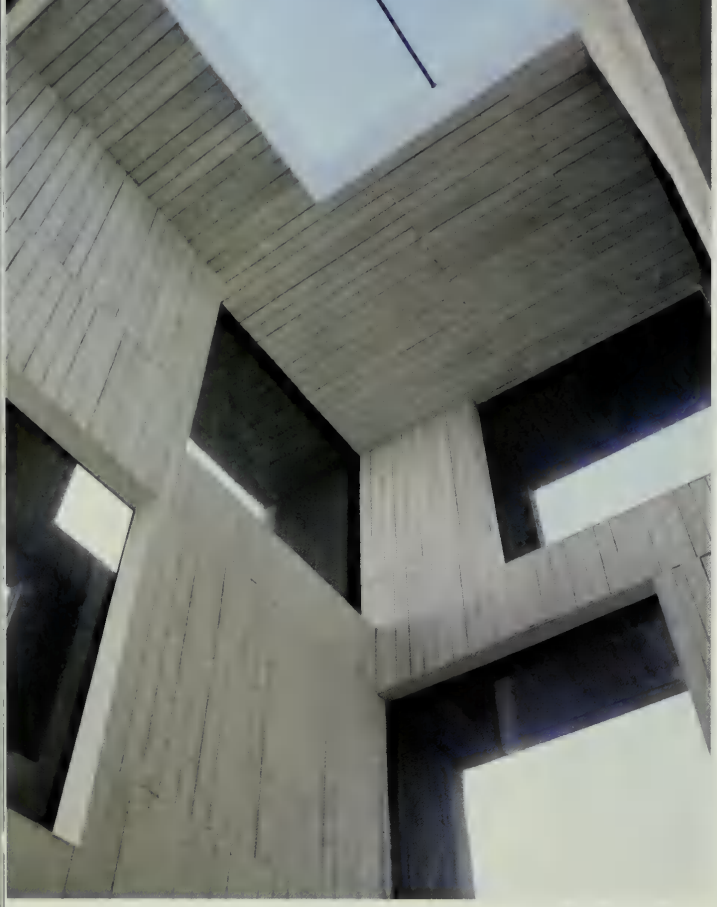








The architects use the main living area (above and far left) for a variety of purposes, including exhibitions during the off-season, when the owners are not in residence for weekend getaways. This space features three separate levels, all opening outdoors through 6.5-foot-tall windows. Stairs to the rooftop terrace are hidden in a hollow perimeter space (left).



Windows frame "swatches" of the landscape, abstracting them in places, while in others creating perfect vignettes of surf, land, and sky (opposite).



The simple furniture, designed by PvE, performs multitasks, such as providing for casual seating or dining (below left). The skylight, along with 20 windows, fills the double-height main living space with sunlight (above).





The architects transformed wood boards, used during construction, into closet doors and shutters, all painted white (left).

from paperback-book-size punctures, with flush glazing, to 7.3-foot-square openings, with the glass set back more than 3 feet from the face of the building, forming entryways on the ground floor and balconies on the second. Staggered at different levels, rather than arrayed in strict bands, the windows hint at the interior's split-level floor planes, which give the main living space three tiers and provide the bedrooms, located upstairs, with sunken seating and observation areas.

Not surprisingly, the owner-couples, who visit Casa Poli on alternating summer weekends, spend much of their time here simply looking out at the framed vistas, culled from the vast landscape. The patchwork of windows—with several heights visible at once from multistoried spaces or across the split levels—suggests an array of postcards with flat, abstract images of the sea and terrain. At the same time, the large apertures give the sense of a house virtually inhabited by the landscape.

Effectively thickening the perimeter wall, while providing a buffer against the elements, a hollow layer of closets, bathrooms, and staircases lines the cube's outer shell. Sliding partitions, made of the wood from the concrete formwork, are cleverly recycled as closet doors, painted white. The wood and the concrete carrying its imprints match seamlessly,

THE PATCHWORK OF SQUARE WINDOWS SUGGESTS AN ARRAY OF POSTCARDS WITH ABSTRACT IMAGES OF THE SEA AND LAND.

adding ingeniously to the house's dialogue between positive and negative forms or spaces. The wood panels also serve as interior shutters, allowing the owners to close up the cube for the week.

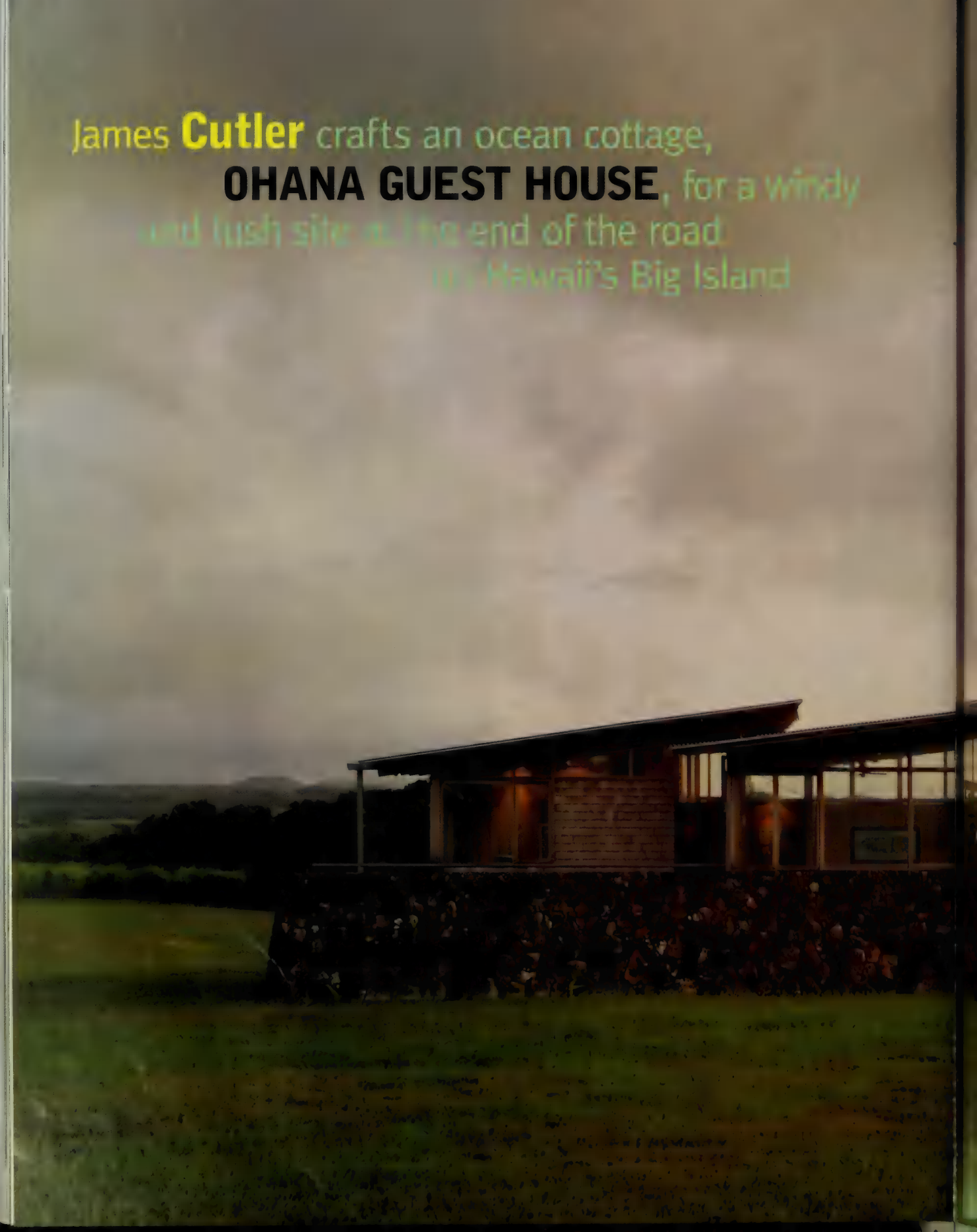
From the bedroom windows facing into the main living space, which rises to double height, you get complex, oblique views through, into, and out of Casa Poli. The house's box-within-a-box-within-a-box layout—a skylit, off-center light well within the living core, in turn surrounded by a service perimeter—is revealed by these sectional views. Yet the horizontal and vertical layering of spaces always keeps some corner hidden. Engaged by this seemingly infinite supply of tableaux, you get the feeling of never occupying any particular level or quadrant of the house. (Imagine inhabiting one of M.C. Escher's impossible structures—another influence on PvE—and you approach this sensation of endlessness).

Just as the multitiered kitchen, dining, and living areas blend together, fluidly morphing in function, the furniture, designed and fabricated by the architects, also performs multitasks. A couch that looks like a built-in fixture, for example, actually opens into four coffee tables. The owners have intentionally left the interior sparsely furnished and uncluttered; likewise, they never leave behind clothes or personal effects. This way, visitors—whether artists in residence or the owners themselves—experience the house as their own and no one else's. (Already a handful of international painters and sculptors has taken turns using the place as a studio during the winter, and government funds have helped pay for exhibitions and other arts events in the space during the spring.)

The absence of boundaries between most rooms leads to a pleasant lack of structure for time spent at Casa Poli. A day might begin with picking *boldo* leaves, a mintlike herb that grows all over the cliff, to make tea, followed by a leisurely hike down a footpath to the rocky shoreline where sea lions rest on boulders, or to a cave where the ocean's tide rushes in, making the loudest noise all day. But this visitor was just as happy to sit on the grass staring at the house, then lounge inside gazing out, finding ultimate enjoyment in contemplating the sheer beauty of the building and its remarkable site. ■

For Sources, go to page 148, and Projects at **archrecord.construction.com**.




James Cutler crafts an ocean cottage,
OHANA GUEST HOUSE, for a windy
and lush site at the end of the road
on Hawaii's Big Island

The Ohana Guest House occupies one of three lots in a 75-acre compound. Set near a former sugar mill in the community of Niulii on the Big Island of Hawaii's windswept north shore, the coastline property lies within a protected conservation zone.





By Robert Ivy, FAIA

A house near the end of the road holds infinite promise. And here, the architectural stakes rise when the route turns past the northern, windward tip of the island of Hawaii, arriving finally at the blustery, sloping site of a former sugar mill. How to respond to such a heroic natural setting?

The Ohana Guest House at Niulii offers a contemporary illustration of the Wrightian notion of organic architecture, in which "the whole is to the part as the part is to the whole." Take the defining instance of a detail in this windswept house, in which flitched metal supports slice into ovoid wood columns, then cross brace between uprights. Structural integrity—literally holding things down, not mere ornament—underlies the design of this singular joint and, for that matter, the entire house. "Lacing the roof to the massive earth elements with metal," as Ohana's architect James Cutler, FAIA, puts it, was essential to creating a viable structure on this particular site.

The wind, unseen but ever present on the Big Island of Hawaii's lush north coast, helped inform the building's shedlike shape. Designed to withstand 80-mile-per-hour sustained gales, the pitched roofs reflect the angle and direction of the prevailing trade winds, which blow in both rain and shine—now clearing, now gusting again.

Set on the clean brow of a 75-acre estate composed of three distinct parcels of land, the guesthouse (*ohana* means "extended family") crowns the hillside site, which drops to spectacular oceanfront conservation property graced with historic, spiky Hala trees, used by native Hawaiians for weaving baskets and textiles.

After the parcel had provided decades of service as a casual town dump, the current owners, who have taken a position as stewards of the land, set about planning a home on the full acreage, and embarked on six years of manual cleaning (large equipment is banned by local ordinance) to clear the land of buried detritus. With the site finally cleaned up, three buildings, including a private residence for the owners, a retired executive and his wife, will form the ensemble, which is still in the planning stages by the client and Cutler, with only the guesthouse built so far. While solitary in its siting and primary views out to the sea (about a mile away), the guesthouse rests on a lot, which stretches toward the ocean, where it abuts a community of modest homes.

Defying the Wrightian dictum that a house should be "of" but not "on" a hill, the owner asked the architect literally to raise this house on a plinth at least 2 feet high: The additional elevation provided her with a sense of comfort, particularly for the sleeping spaces. Hawaiian precedent lay in the *heiau*, a massive raised stone platform, typically used for religious purposes. Here, Cutler used a type of lava stone called *a'a'*, acquired from the nearby mega-property of Parker Ranch, to form a base rising from

Project: *Ohana Guest House, Hawaii, Hawaii*
Architect: *Cutler Anderson Architects —James Cutler, FAIA, principal; Janet Longenecker, Hiroki Kurzumi*
Engineer: *Jerome Madden III (structural)*
General contractor: *Calyton Turnbull*

Modest homes lie over the hill's brow, where the cedar-and-glass Ohana House rises from a lava-stone base (opposite). With pitched roofs angled for wind protection (this spread), the U-configuration (this page, and plan) shelters the pool.



FLOOR PLAN

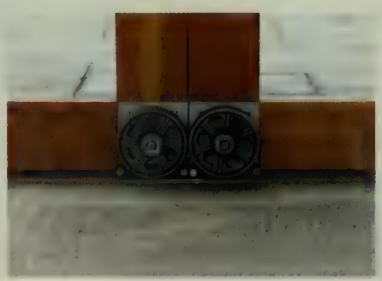
N 0 10 FT. 3 M.

1. *Bedroom*
2. *Library*
3. *Living*
4. *Kitchen*
5. *Dining*
6. *Media*
7. *Laundry*
8. *Garage*
9. *Pool*
10. *Terrace*









Steel supports (left) tie the structure down to the lava-rock base. Custom details include rolling doors (below left) that open the walls to wide Pacific views, as in the kitchen/dining area (above).

3 to 5 feet on the sloping site, lifting the living quarters from the ground plane and securing this shelter to the earth.

Not just the gusts, but all the elements helped dictate the form of plan. The U-shaped design encircles a linear pool, which faces the southerly sunlight, shielded from the windswept outer elevations. With the house thus anchored and protected, transparency from myriad expansive windows characterizes the rest of its construction, with clerestory windows admitting light and air to interior corridors. Gentle breezes circulate freely from exterior to interior passageways, bringing in outdoor scents and sounds. The permeable residence avoids auxiliary mechanical systems, relying completely on ambient heating and cooling. (Only a small library has a heating system for chilly days.) Light and views open in a 180-degree expanse from the mythic Pololu Cliffs, a few miles away, through operable glass jalousies, screens, and doorways out to the sea.

While the owners will ultimately trade their guesthouse quarters for a permanent home, Ohana House will serve them as a primary residence for several years; it therefore reflects their personal interests, with ample space and provision for cooking and reading. Neither the husband nor wife wanted the ubiquitous "great room," so the architect separated living and kitchen areas into discrete, yet flowing spaces. Between the house's democratically equal bedrooms, a small library provides a quiet place for reading.

On the interior, simple detailing pared down to workable neces-





Metal cross bracing, as in the kitchen (above) and corridors (left), helps stabilize the roof structure for high winds and seismic events. Eucalyptus paneling and cabinetry, along with stone floors, add warmth to 16-to-18-foot-high passageways (left).

sity reinforces the sensuous materials. As in other Cutler-designed projects, wood features large in the palette: Tamarind floors, a species introduced into the islands in the late 18th century that has the richness of cherry, and 300 panels of lighter Eucalyptus wood, both typical of the tropical environment, invite visitors to remove their shoes or run their hands along the smooth surfaces. To insure careful assembly, each board was numbered and installed sequentially. In addition to structural bracing, custom steel hardware, some with exposed though refined rolling-wheel mechanisms, as in the sliding doors and panels, renders the house like a working machine that can be boxed up and stored when not in use.

As is typical of Cutler, he got to know the site by shooting the grades himself, much the way an artist "sees" through the act of drawing. Then came the architectural drawings. The clarity and apparent simplicity of the 2,600-square-foot house evolved from his high degree of personal engagement: The finished work required at least 30 site visits by Cutler during construction (trips necessitated not only by this house, but by another in the works nearby) and more than 220 individualized detail drawings. Rather than overwrought, the resulting Ohana Guest House seems honed, pared down to essentials, organic in a Wrightian sense, and windswept, married to the place where it resides and the people it protects. ■

For Sources, go to page 148, and Projects at **archrecord.construction.com**.



Oak treads spiral up from the living room to ■ glass-floored mezzanine. A retractable ladder (not visible here), attached to a steel pole, invites ascent to a belvedere viewing deck. Wren's church (opposite) was originally entered through the base of the tower. The main sanctuary was destroyed in World War II, leaving only an outer shell.

Boyarsky Murphy slips an 11-story home into the tower of CHRIST CHURCH in London

By Raymund Ryan and Sarah Amelar

Christ Church was one of four dozen iconic churches erected by Christopher Wren in the City of London after 1666, when the Great Fire annihilated much of the famous Square Mile—a world center, then and now, for trading and banking. Close to Wren's St. Paul's Cathedral, with its spectacular dome, the tower of Christ Church has recently, almost surreptitiously, been converted by Boyarsky Murphy Architects into a remarkable residence at the heart of the capital.

Having suffered almost complete destruction by German bombing during World War II, the nave of the church remains a ruined carapace surrounding a roofless void, now a Memorial Rose Garden. But the tower, constructed from blocks of Portland stone, survived. (It was partially rebuilt in the 1950s to stabilize the structure.)

The woman who chose to commission an 11-story "flat" inside this great steeple was not Rapunzel herself, but Kate Renwick, who had grown up in the States and Ireland. A widow and mother of two college-age sons, she had held high office at the investment bank of Goldman Sachs.

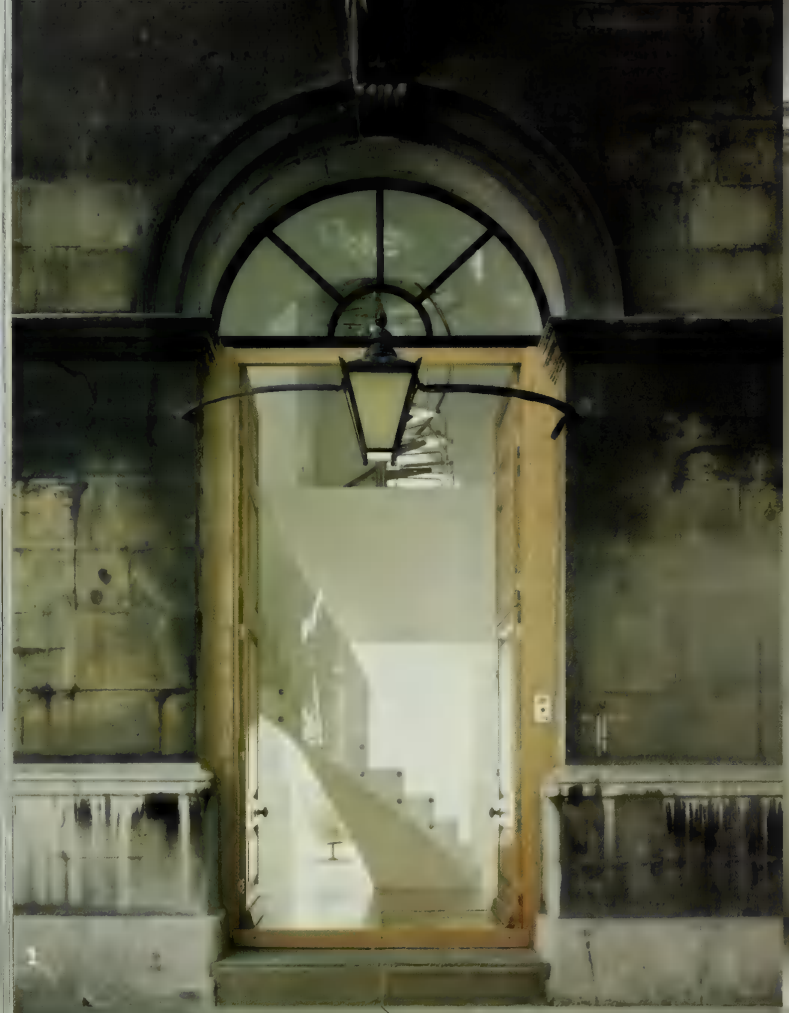
Raymund Ryan is curator at the Carnegie Museum of Art's Heinz Architectural Center.

Project: *Christ Church Tower, London*
Architects: *Boyarsky Murphy Architects—Nicholas Boyarsky, Nicola Murphy, partners in charge*
Engineers: *Alan Baxter & Associates, Greig Ling (structural); McDonnell Langley, Max Fordham (m/e/p)*
General contractor: *KoruBuild*

1. *Foyer/dining*
2. *Kitchen*
3. *Living*
4. *Elevator*
5. *Laundry*
6. *Bedroom*
7. *Study*
8. *Master bath*
9. *Storage*
10. *Master bedroom*
11. *Library*
12. *Mezzanine*
13. *Viewing terrace*
14. *Inaccessible (birds only)*















The architects were advised against cleaning, and potentially damaging, the exterior—now juxtaposed with the entry hall's sleek, modern spiral stair (1) of polished limestone with a curving glass balustrade (2, 4).

After retiring from work in this very neighborhood, London's financial district, she happened to spot a photo of the tower, up for sale, in a real estate agent's window. By then, the tower's interior lay in a derelict state.

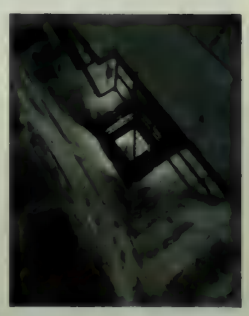
Open to adventure and encouraged by her sons, Renwick soon envisioned a reincarnation of the great monolith. Before gaining explicit permission to convert it into a home, she engaged the firm of Boyarsky Murphy, which she had found via the Client Advisory Service of the Royal Institute of British Architects. Nicholas Boyarsky, son of former Architecture Association chairman Alvin Boyarsky, had worked with Zaha Hadid and Michael Hopkins before forming his own small firm with his wife, Nicola Murphy, in 1994. Their previous projects, with a distinctively clean-lined, Modernist bent, had included a prize-winning house in Holland Park, West London, and the charmingly named Nook, a home on Eel Pie Island on the Thames.

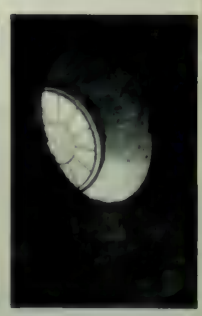
According to Boyarsky, the landmarked status of Christ Church caused significant delays, resulting in an 18-month approval process. The two most critical design problems, he notes, were "circulation and how to make the interior work in terms of light," especially as no new window openings would be allowed. From the outside, the tower gives few clues that a 2,500-square-foot residence now rises inside of it. Only new oak doors at its base offer a glimpse of the architectural intervention.

To tackle the daylight problem and squeeze in vertical circulation while creating a sequence of livable spaces, Boyarsky Murphy reworked the existing six levels to create 11 floors, including several mezzanines. From the bottom of the tower up, the massive walls become thinner (as the structural load from above lightens), allowing for slightly larger floor plates, though none exceeds 231 square feet. Naturally, a lift was needed for daily ascents into this 150-foot-high monument, but the architects were not permitted to remove an original spiral stair at grade to insert an elevator there. Instead, they had to act with the utmost architectural discretion, slipping in an almost toylike, barely two-person lift, which first appears on the third floor. Now Wren's tight stone spiral, embedded in a tower corner, provides the secondary means of egress, certainly a fire-safety necessity. The challenging spatial compression and narrow circulation routes later led Boyarsky Murphy to assemble and build many of the house's furnishings and fittings in situ—an almost surgical process not apparent from the street.

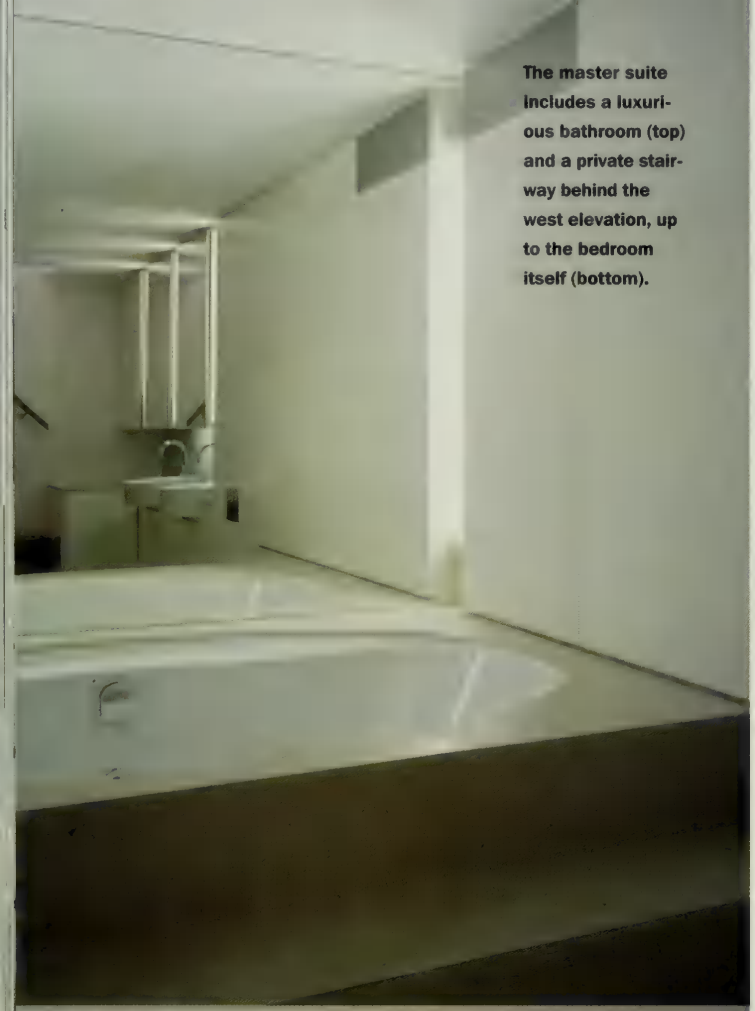
Behind the oak front doors, the journey up through the building proceeds from a front hall that doubles as a dining area. This is the church's original entry vestibule with an elegant Greek-cross plan and high domical vault. From here, new stairs curve upward with risers and treads of polished limestone, an inner balustrade of white plaster, and an outer balustrade of glass—all streamlined and clearly modern, yet sympathetic

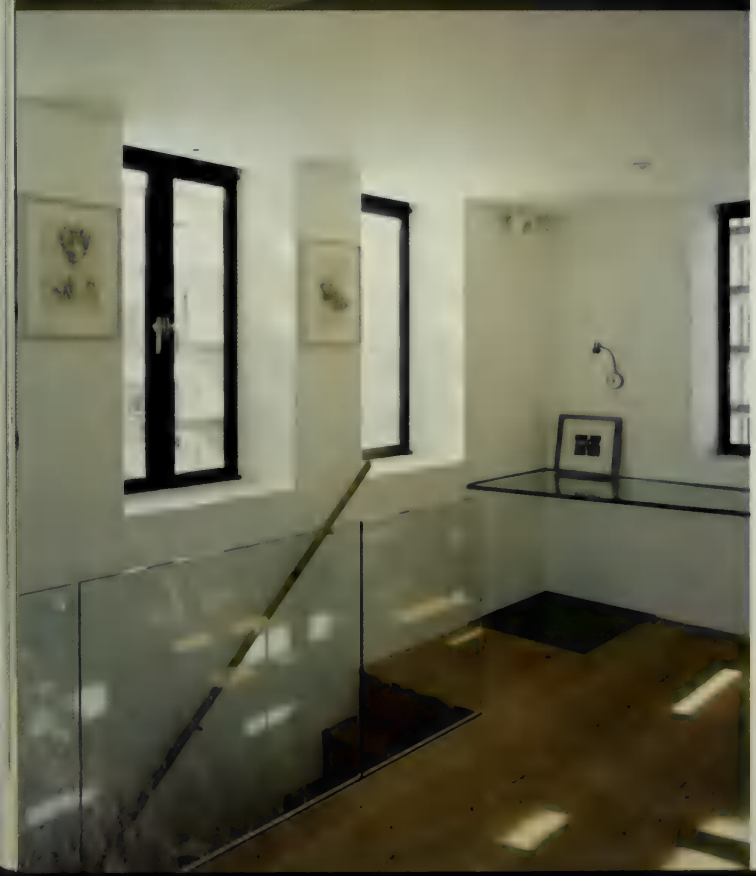






The tower's varied window types—today, with metal rather than the original timber mullions—include round ones (far right), now in the sons' bedrooms (5) and tall, small-paned openings on the third level (6). One stone archway (3) formerly led to the adjacent (now nonexistent) sanctuary's attic. Before Boyarsky Murphy's interventions, exposed rubble masonry lined the entire tower (near and far right).





The master suite includes a luxurious bathroom (top) and a private stairway behind the west elevation, up to the bedroom itself (bottom).

to the original architecture. The stair's white-plaster edge flows seamlessly into the balustrade and soffit of a small mezzanine above. At the top of the ascent, the architects inserted a meticulously detailed custom kitchen in the space between the winding stair and the thick, sculptural outer walls. Existing windows in arched niches open to views in the cardinal directions, giving the small kitchen area an expansive quality.

Spiraling up to the next floor, a second, more tightly wound stair has a balustrade of acrylic (as glass could not be curved to this small a radius). The third story, with space for the elevator, offers a sitting room amid tall, multipaned windows.

The next three levels form a triplex with a bedroom for each of the client's sons above their bathrooms and laundry area. This three-story zone is accessed at the tower's fifth floor, where, beside a wall of oak shelves, a staircase disappears out of view as it descends to the bathrooms and laundry. A small, double-height vestibule near the tower's center marks the entryway to the sleeping areas, each a double-height space with its own configuration of internal steps up to a mezzanine study with built-in oak furniture and axial views across the surrounding cityscape. One of the stairways is of folded steel; the other, made of oak, has a narrow alternating-riser system, occupying only a minimal patch of precious floor space.

A generous bath and built-in closet occupy the next two levels, surmounted by the master bedroom. A private staircase inside Wren's west facade and a walkway of glass lenses set in the floor connects these spaces. The ninth floor is the living room—rising 49 feet high into the former bell chamber—with its shell drywalled and its concrete floors laid with wide oak boards that are not smooth but pelleted, as in the 17th century. The architects subtly replaced exterior concrete louvers from the 1950s with a lookalike brise-soleil of Portland stone, angled unlike its concrete predecessor to bring in light and views. Juxtaposing sleek new insertions with grittier old elements, they intentionally left exposed a concrete ring beam and rubble walls, complete with graphic notations by postwar reconstruction teams.

In this light-filled aerie, miraculously close to St Paul's and just across the street from the Stock Exchange, the views of London are extraordinary. But the ascent continues where the steeple grows slender, as its stacked cubic forms approach the ornate pinnacle. Now the space available to Boyarsky Murphy becomes even more squeezed. A final corkscrew staircase, this one with open oak treads cantilevered from a stainless-steel pole, twists up to a transparent glass floor held by a delicate steel frame within the "found" octagonal space. From this private and vertiginous deck, housing a library, a retractable ladder attached to the pole leads to an upper mezzanine with a glass-and-wood floor. Those of hearty disposition can climb a second ladder to emerge from Wren's envelope into a columned belvedere, clearly visible from the exterior.

With daylight spilling in from an aperture in the tower's telescoping apex, the once-neglected and war-torn Christ Church comes alive in ways Wren probably never anticipated. With ingenious and precise insertions, Boyarsky Murphy has created a domestic world that is surely unlike any other; in some sense, a fantastic 11-story folly. Since Renwick's children are quickly growing up and heading on—and the $2 million Christ Church conversion is now complete—she is already planning her next move. Turning into a serial renovator with a newly acquired taste for Wren churches, she has commissioned Boyarsky Murphy to transform yet another of his forlorn spires into a residence. This time, it's St. Mary Somerset, along the riverfront of London's financial district, a structure in a greater state of disrepair—tantalizingly, an even more towering challenge. ■

For Sources, go to page 148, and Projects at **archrecord.construction.com**.





The kitchen (above) includes counters of polished black granite and a spiral stair with a balustrade and treads of clear acrylic. The soaring living room, on the ninth floor, occupies the former bell chamber, now with new Portland stone louvers (outside the glazed French doors), angled for light and views. The 1950s louvers were of concrete (right top). An original spiral stair, embedded in a corner of the tower (far right) provides a secondary means of egress. The masonry walls are up to 8 feet thick (near right).









Irregularly placed cedar cladding and angled wood piles serve as abstract metaphors for the house's forested site.

On a wooded site on Taylors Island, Maryland, **KieranTimberlake** tested a new way of building with the **LOBLOLLY HOUSE**



Mostly opaque on the three sides facing the woods (opposite), the house opens to the west (left) with views of the Chesapeake Bay.

By Clifford A. Pearson

Stephen Kieran, FAIA, likens his family's new weekend house on Taylors Island in Maryland to a duck blind, one of those three-sided shelters that hunters build to make themselves disappear in the woods or a marsh. Barklike vertical strips of red cedar clad three elevations of Kieran's 2,200-square-foot house, camouflaging it on a 4-acre Chesapeake Bay site thick with loblobby pines. While those mostly opaque sides face the surrounding forest, the fourth elevation literally opens to the water—thanks to retractable translucent hangar doors and accordion-folding glass walls that the owners can move to eliminate all separation between indoors and out.

And like a duck blind, the building—which the architect calls the Loblolly House—can be disassembled. Most of its pieces are then recyclable. Concern for the environment has long been essential to the work of KieranTimberlake Associates, Kieran's Philadelphia-based firm. But in the past few years, the practice has also investigated modular and prefabricated construction with the aim of developing faster, cheaper, and smarter ways of building. "Forty percent of the material in landfills is building debris," notes Kieran. "If you could take apart a building and sell elements from it on eBay, you could make a difference."

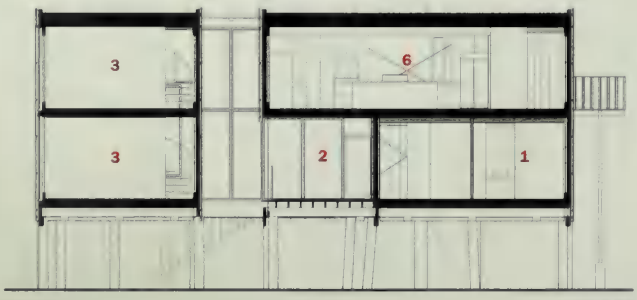
But most attempts at prefabrication in building construction have failed, he says, due to economics, market perceptions, and peculiarities of the home-building industry. Traditional construction methods have long been less expensive than prefab experiments, and perceived by the public as being of higher quality. In the past few years, though, the costs of on-site construction have soared, while the industry has faced serious quality concerns, says Kieran. At the same time, the quality of factory-built components and consumer interest in prefab have risen. "We're close to a tipping point," he suggests. "I think we can flip the general perception, so that houses largely made from factory-built components are seen by the public as cheaper and better."

The one earlier example of successful industrialization in American home building—manufactured houses delivered by truck to sites all over the country—holds no appeal for Kieran and his partner, James Timberlake, FAIA. "You're stuck with dimensions and limitations determined by highway transportation rules. That's the death of architecture," Kieran maintains. "No matter what you do, you always read the single- or double-wide trailer in those homes."

KieranTimberlake saw the three-story Loblolly House as a system made entirely of off-the-shelf elements and components fabricated off-site to be assembled atop a platform (or "foundation") of wooden piles sunk into the sandy soil. Key components included so-called "smart cartridges" used to create floors, ceilings, and roof; "dumb cartridges" for the building's skin; and "blocks" that house bathrooms or mechanical rooms. All of the cartridges are 12-inch-deep sandwiches made of plywood or cement-board layers with wood studs in between. By installing radiant-heating elements, insulated microducts for air-conditioning, and wiring for power, lighting, and data, the off-site fabricator makes the floor and ceiling cartridges

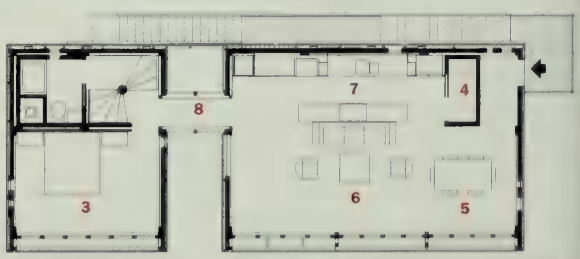
Project: *Loblolly House, Taylors Island, Maryland*
Owners: *Barbara DeGrange and Stephen Kieran*
Architect: *KieranTimberlake Associates—Stephen Kieran, FAIA, James Timberlake, FAIA, design partners; Marilia Rodrigues, project architect*
Engineers: *CVM (structural); Bruce Brooks & Associates (m/e/p)*
Consultants: *Marguerite Rodgers (interiors); Barbara Seymour Landscapes (landscape)*
Fabricator: *Bensonwood*
General contractor: *Arena Program Management*





SECTION A-A

0 3 FT.
1 M.



SECOND FLOOR

A small court separates the house into two volumes (above): a smaller one serving the Kierans's two children, and a larger one with the main living spaces and master bedroom.

1. *Master bedroom*
2. *Deck*
3. *Guest bedroom*
4. *Mechanical*
5. *Dining*
6. *Living*
7. *Kitchen*
8. *Glass bridge*



FIRST FLOOR

N 0 3 FT.
1 M.



Four airplane-hangar doors protect the west elevation (below left and right). At the touch of a button, they can open, close, or stop at positions in between.





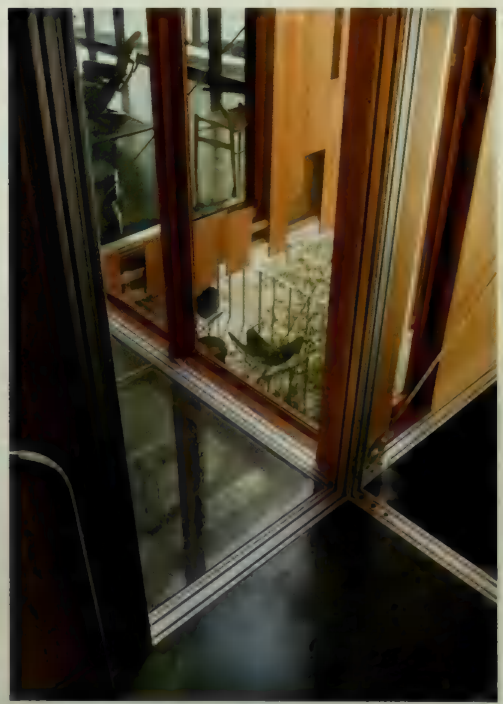
A clear glass bridge (right) connects the two halves of the house, spanning a garden landscaped with bamboo and gray stones.

"smart." Wall cartridges, on the other hand, are "dumb" because they contain only insulation, vapor barrier, sheathing, and windows. Blocks embody the most complex elements of the house: complete rooms—with ceilings, walls, glazing, finishes, plumbing, power, and lighting—that can be lifted into place, then quickly plugged into utility connections already threaded through the building's frame.

Once the builder had sunk the piles and installed beam collars, the house's on-site construction took just six weeks, starting at the end of September 2006. To minimize damage to the fragile ecosystem (which is home to large populations of bald eagles, hawks, and water fowl), the architects arranged for the factory-built components to be delivered on an on-demand basis.

Kieran supplemented those components with off-the-shelf items, such as a German-made aluminum frame, an interior steel spiral stair, and kitchen cabinets and counters. The few elements actually built on-site included the wood piles with beam collars, an outdoor stair on the east elevation, stained-bamboo flooring indoors, and the cedar-plank siding on the three land sides of the house. After assembling the house so quickly, Kieran found the weeks it took to install just the bamboo flooring excruciatingly long.

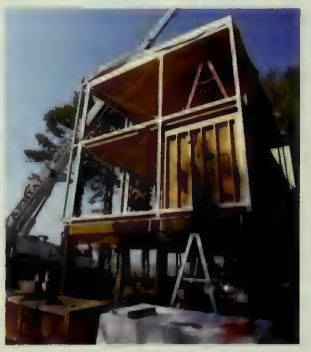
With his project architect Marilia Rodrigues, he developed the irregular pattern of cedar siding by pasting strips representing the planks on



A floor-to-ceiling glass wall in the living/dining area (above) and in the bedrooms folds open in panels that slide off to one side.

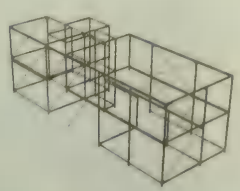
A fabricator built pieces of the house in a factory (right). The various components were then assembled on-site (far right).



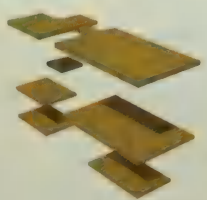




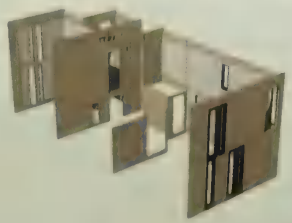
1. *Piles*



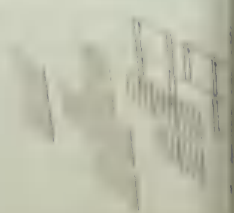
2. *Scaffold*



3. *Cartridges*

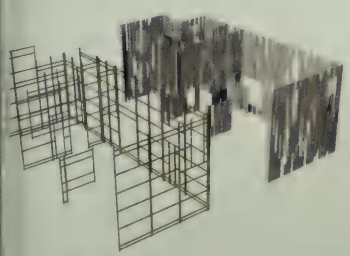


4. *Wall panels*

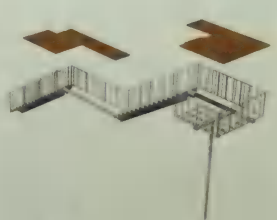


5. *West wall*

A small deck (above) on the lower floor overlooks a bamboo garden on one side and the Chesapeake Bay on the other. The house was assembled in just six weeks from a series of components (below), most of which were made in a factory in New Hampshire.



6. *Rain screen*



7. *Exterior stair*

A NEW WAY OF BUILDING Kieran and Timberlake developed many of their ideas on prefabricated housing by looking at other fields, in particular the automotive and aerospace industries. In 2001, they visited a Boeing aircraft facility and marveled at the way the company's engineers built a digital parametric model that depicted every one of a 777 airplane's one million parts as a solid object and provided all kinds of information about its material properties, source, and cost. Now KieranTimberlake (and other architects) is using building information modeling (BIM) software that offers the same kind of parametric modeling. "Parametric modeling was the breakthrough that allowed us to take components manufactured at various places off-site and bring them together with a high level of precision on-site," explains Kieran. [For a detailed examination of the firm's use of BIM and the construction process it used on the Loblolly House, see RECORD, November 2006, page 185.]



Stained bamboo floors and the colors of material used on furnishings in the master bedroom allude to the site's cordgrass.

a photograph of the site. "We designed the house as an abstraction of the key elements found there: loblolly pines, tall grasses, water, and the western sun," says Kieran. So the cedar boards' varying widths and spacing echo the dappled rhythm of the forest; the green-stained bamboo flooring recalls local grasses; a two-story-high expanse of orange-coated glass set between the main volume of the house and its guest wing provides a visual jolt suggesting a sunset when light shines through it; and the two floors of living and sleeping spaces, raised one story above the ground, allow flood waters to flow underneath.

Instead of placing living and dining rooms on the lower floor, the architects put them on the upper one to capture the best views of the water. Inside, the house orients every space (except bathrooms and mechanical rooms) to the sun setting over the bay. To protect this western elevation from solar heat and glare, KieranTimberlake treated it as a piece of equipment that can open and close in three independent layers—starting on the inside with simple roll-up shades; then a glass wall that folds up in 2.5-to-3-foot-wide sections, which slide on floor and ceiling channels; and finally, the translucent polycarbonate airplane hangar doors that fold out and up at the touch of button. A 16-inch air gap between the glass wall and the hangar doors provides insulation when this "equipment" closes shut in cold weather. On a visit to the house on a sunny day in February, the 35-foot-long living room was getting plenty warm by 2 P.M., so Kieran opened the glass wall and let in a cool bay breeze. When asked if he had considered a porch for this elevation, he replied, "The living room *is* the porch."

The outdoors makes its presence felt in other ways. too. For example, a small court just 8 feet wide and planted with bamboo separates the living room/master bedroom block from a smaller volume containing guest rooms (one on each floor for the Kierans' two grown children). A clear-glass indoor bridge spans the court, providing a light-filled connection between the house's two halves. And on the lower floor, a small deck serves as an outdoor room.

Kieran is now talking with an unusual company that sells LEED-certified, factory-built houses about creating a version of the Loblolly House that could be purchased and built in different places. (The company is currently offering houses designed by Ray Kappe, FAIA, and David Hertz, AIA.) "The idea is to develop the house as a product," says Kieran. "We'll use the Loblolly House as a prototype for a more generic system." He estimates that around 60 to 70 percent of the Loblolly House's components were built in a factory. For a commercially available iteration, he would like to push that figure to 80 or 85 percent, which would help reduce costs to around $250 per square foot (about half the cost of most custom homes). All of a sudden, an architect-designed house falls within reach of a lot of middle-class Americans. ■

For Sources, go to page 148, and Projects at **archrecord.construction.com**.



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New York State
(page 98)
Sources
Windows: *Duratherm*
Glazing: *Pilkington*
Hardware: *Valli & Valli*
Interior finishes: *Boyce Products (cabinets); Sterling-Miller Designs (kitchen island)*
Wall coverings: *Timourous Beasties; Bisazza (glass tile); Ridgefield Industries (raised flooring)*
Furnishings: *B&B Italia (fixed seating); Cassina (chairs)*
Lighting: *Regency Architectural Lighting (downlights)*

RING HOUSE

Karuizawa, Japan
(page 106)
Sources
Structural system: *Saito Wood Industry*
Exterior cladding: *Nakamotozourin*
Windows: *Naito*
Glazing: *Oxa Matex*
Wall coverings: *Tokyo Mokuzai Kigyou*
Furnishings: *Koutarou Nakamura+Kanako Nakamura/plots (tables); Shinji Kodama/Sanrinsha (firewood stove)*
Lighting: *Kunio Satou/Lighting Crew*



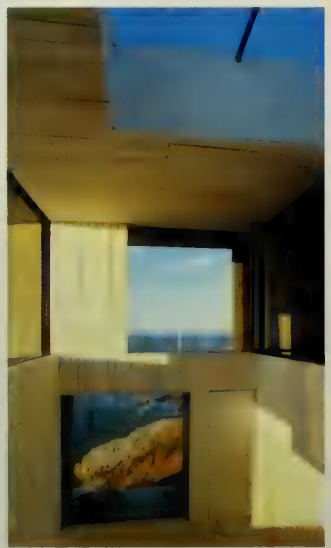


BROWN HOUSE

Omaha
(page 112)
Sources
Exterior cladding: *State Steel; Swanson Sheet Metal*
Roofing: *Firestone*
Windows: *Randy Brown Architects*
Glazing: *City Glass; Polygal*
Paints and stains: *Sherwin Williams*
Wall coverings: *Plywood Inc (paneling); Sunderland Brothers, Knutzen Tile (tile flooring); Dale Ocken Company (raised flooring)*
Furnishings: *Cassina Le Corbusier*
Lighting: *Metro Electric*

CASA POLI

Coliumo Peninsula, Chile
(page 120)
Sources
Windows and doors: *Digosa*
Glazing: *Digosa*
Hardware: *Digosa*
Interior finishes: *Cesar Manriquez*
Furnishings: *Pezo von Ellrichshausen Architects; Ramón Cartes*





OHANA GUEST HOUSE

Hawaii, Hawaii
(page 128)
Sources
Roofing: *Taylor Metal Roofing*
Windows and doors: *Two Rivers Window*
Lighting: *Bruck (cablelights); BK (stemlights, landscape); Alco (bathroom); Translite Sonoma Art Lighting*

CHRIST CHURCH TOWER

London
(page 134)
Sources
Structural system: *John Atwater (wood); Sharder Glass (glass balustrades, glazed floor panels); Spiral Staircase Systems*
Roofing: *Able Waterproofing (metal); Paye Stonework & Restoration (stone)*
Windows: *Senlac*
Glazing: *Pilkington Building Products (glass, skylights); St. Helens (skylights)*
Doors: *MSJ Joinery (entrances); Hafele (sliding doors, closers)*
Hardware: *D-Line (locksets, hinges, pulls); Hafele (cabinets)*
Cabinets and custom woodwork: *KoruBuild; MSJ Joinery*
Paints and stains: *Johnstone's; SigmaKalon; OSMO (floor wax)*
Wall coverings: *KoruBuild, F.A. Firman (paneling); Stone Age, Delabole (tile)*
Furnishings: *Fritz Hansen, Supporto, Vitra, Cappellini (chairs); KoruBuild (tables)*
Lighting: *Lightgraphix (interior ambient); Erco, Kreon (downlights); SKK (task); Bega (exterior); Panasonic (controls)*



LOBLOLLY HOUSE

Taylors Island, Maryland
(page 140)
Sources
Structural System: *Bosch Rexroth (aluminum framing); Tripyramid Structures (stainless-steel-rod assemblies)*
Exterior cladding: *James Hardee Building Project*
Windows: *Artistic Doors & Windows; Loewen Windows*
Glazing: *Deglas (insulated panel); Innovative Building Products (structural glass floor)*
Doors: *Artistic Doors & Windows (entrances); Nanawall (metal); Wilson Doors (hangar)*
Hardware: *Double-Hill*
Wall coverings: *Solistone*
Lighting: *Lightolier (downlights); We-ef Lighting (exterior); G Squared (ceiling fans)*



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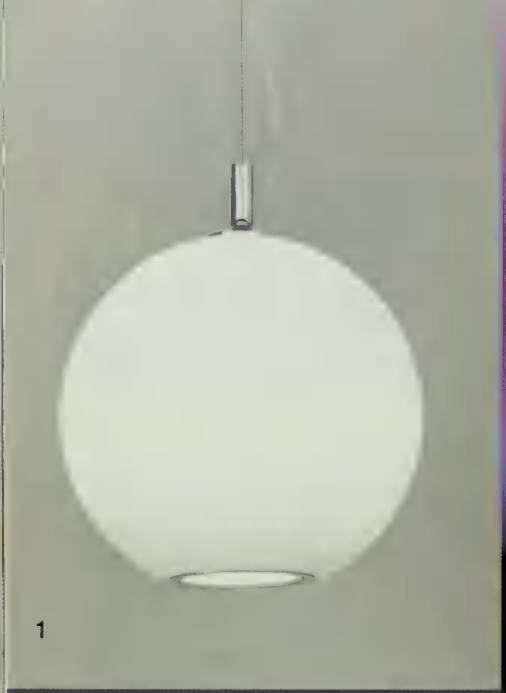
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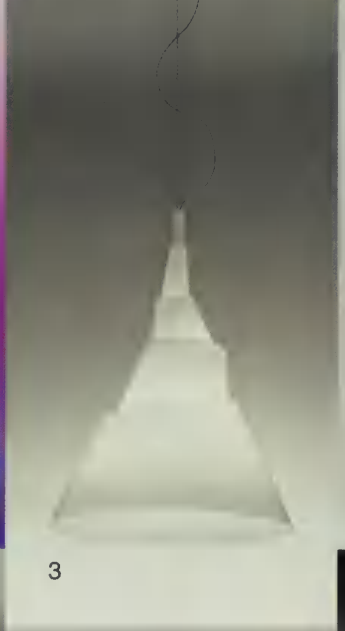
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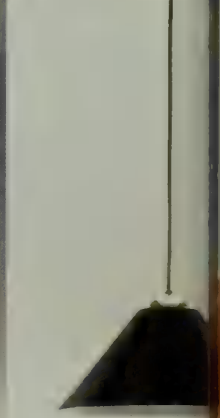
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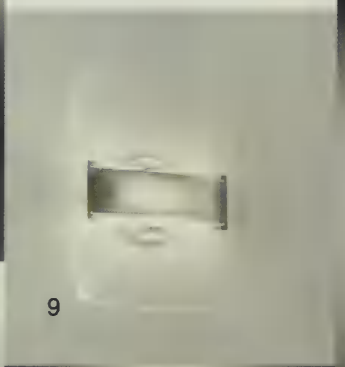

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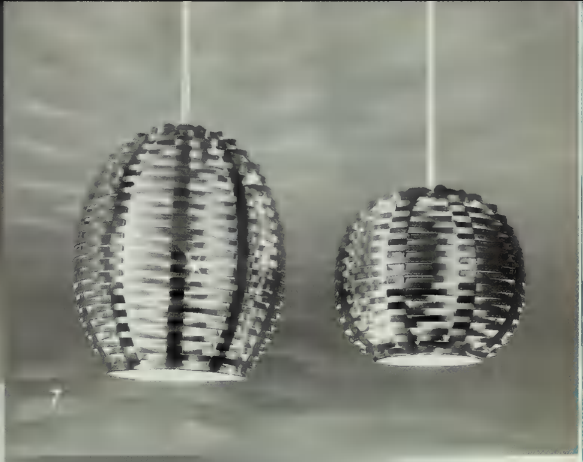

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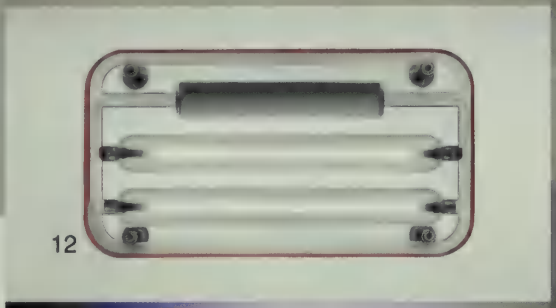

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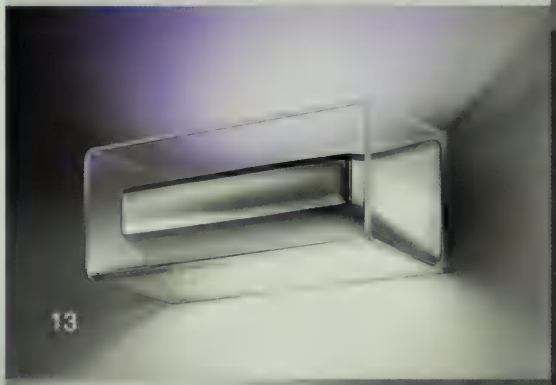






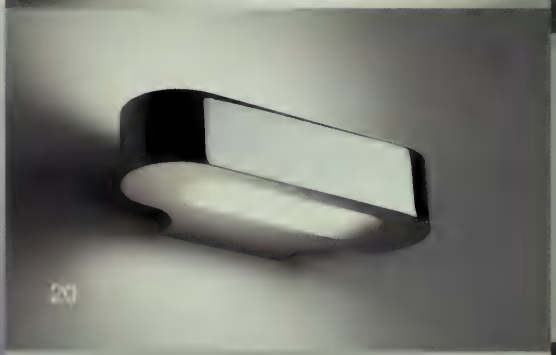


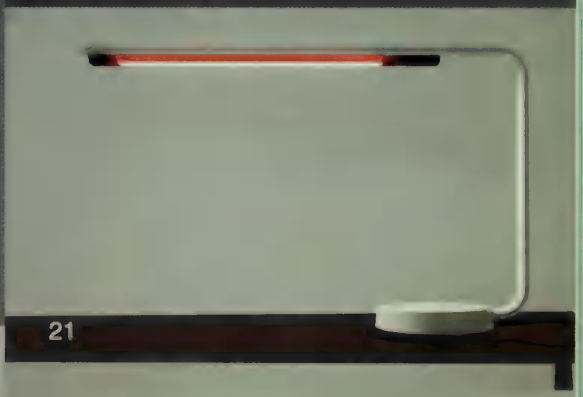


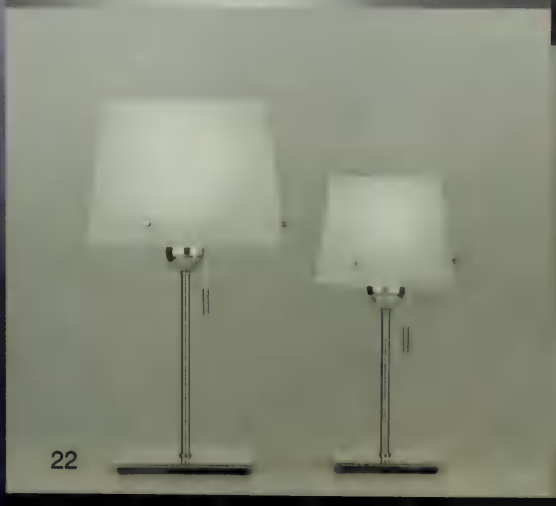


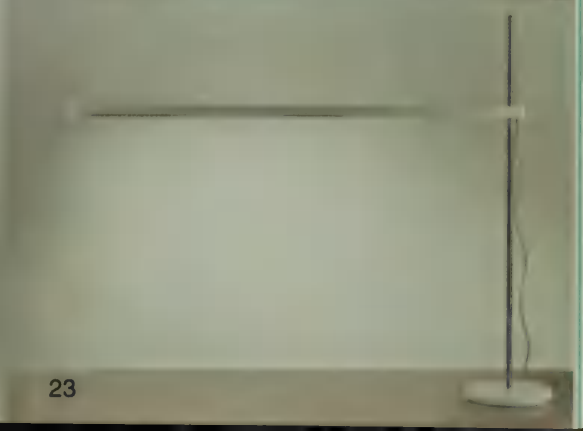
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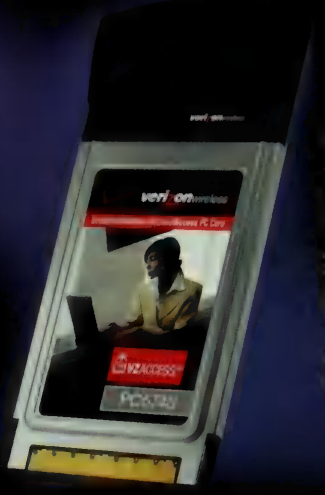
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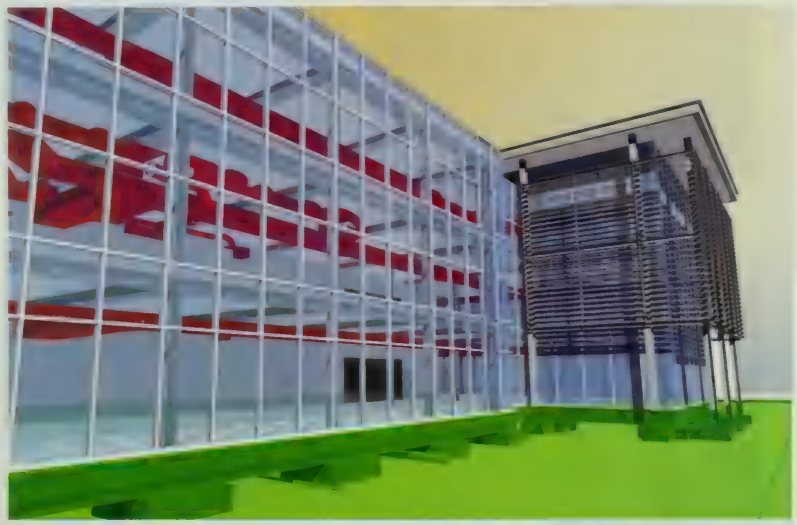
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Transformative Tools Start to Take Hold

A CRITICAL MASS OF BUILDING INFORMATION MODELING PROJECTS DEMONSTRATES THE TECHNOLOGY'S BENEFITS AND ITS POTENTIAL FOR REDEFINING PRACTICE

By Joann Gonchar, AIA



The collaborative virtual process employed by the team that designed and built a Houston office building (above and below) was key to its efficient coordination and smooth construction.

No doubt you've already heard a great deal about the digitally enabled revolution that promises to transform design and construction. Proponents say that if the industry embraces building information modeling, or BIM, it will streamline the delivery process, ensure well-coordinated documents, providing a basis for more accurate fabrication and construction. Designs will be more closely tied to structural analysis and energy simulations, producing better performing, higher-quality facilities. These will be built more quickly and at lower cost than previously possible, resulting in fewer claims, and of course, happier clients.

So exactly what is this panacea for all that ails the design and construction industry? At the heart of the new process is the building information model—an object-oriented digital representation of a building. Unlike traditional two-dimensional CAD drawings, the model is not a collection of discrete lines on the screen, but is a compilation of integrated and dynamic data that describes the functional and physical aspects of a building and its components. This model could include information such as the dimensions and structural characteristics of beams, the fire rating of partitions, or warranties for mechanical equipment.

More than a new way of drafting, BIM is really a paradigm shift for design and construction. Its adoption forces examination of a host of practice and business issues, from the definition of professional roles to liability to project delivery methods. Perhaps because of these still-emerging concerns, BIM is not yet mainstream. According to the most recent American Institute of Architects' firms survey, *The Business of Architecture*, about 16 percent of firms have acquired BIM tools, and roughly 10 percent are using them for billable work. However, among firms with 50 or more employees, just over 60 percent have acquired BIM software, and just over half are using it on billable projects. Adoption is likely now more widespread since the data, collected in the spring of 2006, is already eons old in the context of a rapidly evolving technology.



Even for large, technologically sophisticated firms, it isn't all BIM all the time. "While we are using 3D modeling on just about everything, we aren't at that level just yet for BIM," says NBBJ managing partner Jim Jonassen, FAIA. Jonassen says the firm has been pursuing object-based design for about a decade, with just over half of its current projects using BIM. His goal is for 75 percent of the firm's projects to be using the process by the year's end.

Just how comprehensively the technology is being used varies from project to project and team to team. A whole spectrum of deployment is possible. Some architects and consultants are using BIM only within their own offices and distribute 2D background documents to other members of the team. On other projects, 3D models are shared with fabricators and constructors. Some contractors are creating their own building information models from their designers' traditional CAD drawings. Sources say that there are still benefits, even when only one member of a project team is working in a BIM environment. "If we are the only ones using the process, it still improves the quality of the product and our

CONTINUING EDUCATION

Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/ *AIA Continuing Education article. To receive credit, turn to page 162 and follow the instructions.*

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. *Define what a building information model is.*
2. *Explain the benefits of using building information modeling (BIM).*
3. *Discuss how BIM can be used in design and construction.*

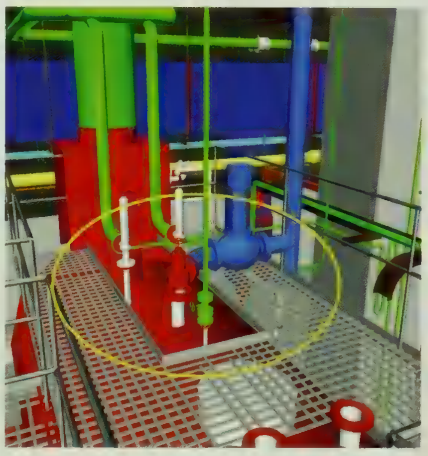
For this story and more continuing education, as well as links to sources, white papers, and products, go to **archrecord.construction.com**.

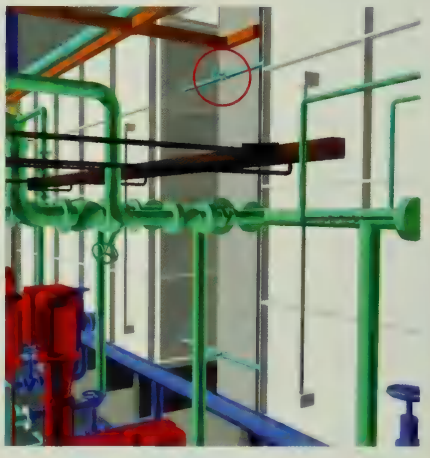


Design and construction of a 1.2-million-square-foot hospital for London involves numerous stakeholders and an array of software platforms and tools (right). BIM clash-detection capabilities helped identify maintenance issues and hazards, such as a conflict between a manhole and a service ladder, a missing handrail, an an inaccessible valve (below three, left to right).









efficiency," says Jim Jacobi, C.I.O. of structural engineering firm Walter P Moore. However, "You can come as close as possible to flawless delivery when all the partners in the supply chain engage," he adds.

With large owners like the General Services Administration (GSA) jumping on the BIM bandwagon, use of the technology by all members of the design and construction team will surely grow. Since 2003, the agency has been exploring aspects of BIM, including energy simulation, materials quantity analysis, and construction scheduling, on

THE GSA PREDICTS THAT TEAMS USING BIM FOR SPATIAL MANAGEMENT ARE UNLIKELY TO RETURN TO THE OLD TECHNOLOGY.

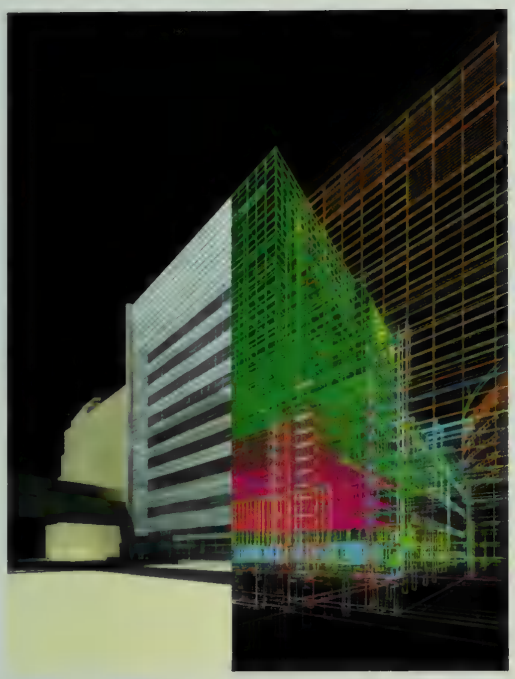
select pilot projects. But starting with this fiscal year, funded projects are required, at minimum, to provide "spatial program building information models" as part of their schemes. The spatial models will be used to evaluate how well proposals meet programming requirements.

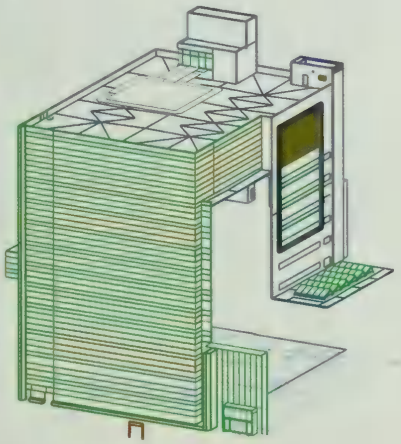
Although the official GSA goals may seem relatively modest, agency administrators predict the requirements will serve to demonstrate the power of the technology and encourage more comprehensive deployment. "Any team that uses BIM to perform spatial management is unlikely to return to the old technology," says Charles Matta, FAIA, director of the GSA's Center for Federal Buildings and Modernization.

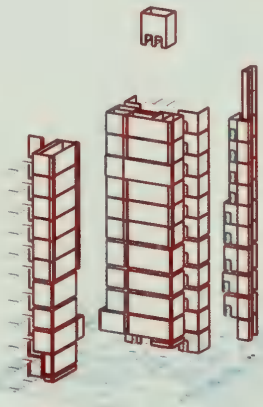
The increasing body of well-advanced and completed projects should also serve to broaden the industry's adoption of BIM as team members promote the benefits of the process. One recently completed project that used BIM comprehensively is a 65,000-square-foot, three-story office building in Houston designed by Kirksey. Although the firm had been using ArchiCAD, Graphisoft's object-based software since the late 1990s, this was its first experience as part of an integrated design and construction team using BIM, says Russell Wooten, Kirksey associate. On earlier projects, the firm's consultants had always worked in 2D.

The model was used to evaluate glazing options, perform daylight studies and energy analysis, and coordinate the structural, m/e/p, and architectural systems early in the construction document phase. The general contractor and owner of the building, Satterfield & Pontikes, used the model as an estimating and scheduling tool. The LEED Gold–rated facility was designed and built in 11 months, with no Requests for Information. Use of BIM helped shave two months from the construction schedule and also saved about $10 to $15 per square foot, estimates George Pontikes, Satterfield & Pontikes president and C.E.O.

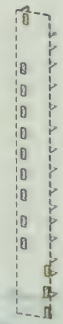
Helping NBBJ meet an aggressive design and construction

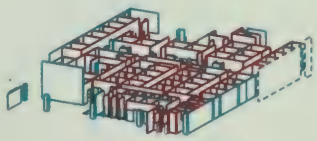












BIM has helped NBBJ meet an aggressive schedule for a Cleveland health-care facility. Like most building information models, the project database is organized by major elements, such as enclosure, core, vertical circulation, and interior fitout.

schedule was one of many reasons for using BIM on the Glickman Pavilion, a 325,000-square-foot urology, nephrology, and dialysis center at the Cleveland Clinic in Cleveland. Although programming was begun in the summer of 2005, more than a year after construction of an adjacent cardiac center was started, the hospital targeted October 2008 for completion of both buildings. "The promise of finding efficiencies [in BIM] has always been there, but we've seen it demonstrated for the first time on this project," says Doug Parris, AIA, NBBJ project manager and partner.

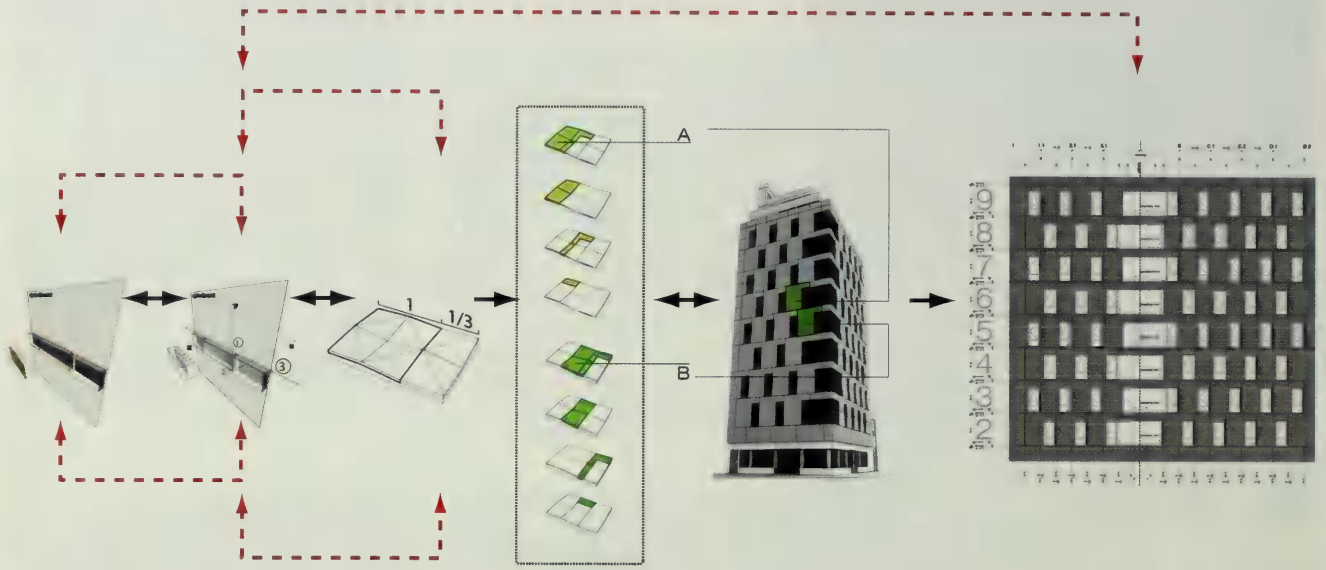
When the owner added another elevator to the building after the contractor had started construction of the foundations, the architect was able to update the model in less than half a day. Construction has progressed smoothly, with structure for five of the building's 10 floors complete and installation of the curtain wall under way. "Fast-track projects are done all the time, but we were able to do it here without extra staffing," says Parris.

One huge benefit of using BIM for systems-intense building types such as hospitals is the capability of detecting conflicts between the m/e/p components and the architectural and structural elements. A health-and-safety review of the combined digital model for the Royal Hospital London, a 912-bed facility designed by HOK and slated for completion in 2012, uncovered several potential hazards and maintenance issues. Problems such as inaccessible valves and a service ladder located too close to a manhole would have been costly to correct had they not been detected before construction, points out Miles Walker, a HOK vice president and London office CAD manager. He adds that the kind of intelligence embedded within the model will also be useful once the building is in operation as part of the facility management system.

Never too early

Many sources say that a true building information model (or one that exploits the BIM process to its fullest potential) is based on an information resource shared among all participants and stakeholders throughout the life of a project, from the earliest phases of design through occupancy. However, such comprehensive deployment is still not the norm. Instances of implementation from the start to the end of a project are still rare, says Mieszko Niedzwiecki, AIA, vice president and director of design at Leo A Daly. One of the firm's current BIM projects is the renovation of a library and design of two new buildings for Georgia State University in downtown Atlanta. Niedzwiecki and his team used BIM even before schematic design to explore programming issues, phasing, and the urban design implications of the proposed project.

Although BIM users constantly refer to "the model," in actual practice, a multidisciplinary project team is rarely, if ever, served by a



Interface with fabricator | Parametric interface | Master mold | Family types | Master model | Interface with fabricator

SHoP Architects used four programs to generate a New York City apartment building's faceted brick and precast-concrete cladding. The eight panel types, based on one parent, take into account material properties, transportation limitations, and manufacturing constraints.

single, seamless database. Instead, teams rely on a series of models usually organized by discipline, and are often dependent on different software platforms. The models are generally updated and coordinated at regular intervals, often via a project extranet.

Even within their own offices, architects employ numerous software tools from a variety of vendors, exploiting the strengths of each. Such is the case with New York City–based SHoP Architects. The firm typically uses AutoDesk Revit to manage a project's database but picks

"WE STILL DEPEND ON STANDARDS THAT ARE A LEGACY OF DRAFTING IN 2D," SAYS KIRKSEY'S WOOTEN.

and chooses from other programs for the one best suited for the particular design problem at hand, explains principal William Sharples.

For a 26,000-square-foot, 9-unit condominium building under construction in downtown Manhattan, SHoP used four programs, each from a separate software company, to design the building's faceted panels of brick and precast concrete. The architects quickly sketched the cladding's complex surfaces with the 3D modeling and visualization tool Rhino. But in order to understand the relationship of one brick to another and determine the configuration and placement of the eight different panel types, they used Gehry Technologies' Digital Project and Bentley Systems' parametric tool, Generative Components (GC). These two programs were employed in tandem to take into account factors such as material properties, transportation limitations, and the fabricator's manufacturing constraints. This cladding data was periodically imported into, and coordinated with, the project's Revit master model and regularly shared with the fabricator, says Federico Negro, SHoP project manager.

New technology, old standards

One challenge facing designers, contractors, and other users of BIM is the lack of standards for the organization and format of the data contained within models. "We still depend on standards that are a legacy of drafting in 2D," says Kirksey's Wooten. Organizations such as the National Institute of Building Sciences (NIBS) and the International Alliance for Interoperability are pushing hard on the issue. (Note: RECORD publisher McGraw-Hill Construction is an active member of the alliance.) At RECORD press time, the institute was due to release a draft document establishing principles and methodology for a national BIM standard. The draft will be available for public comment at www.nibs.org through

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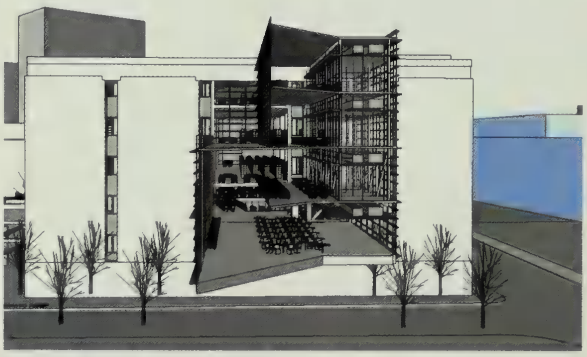
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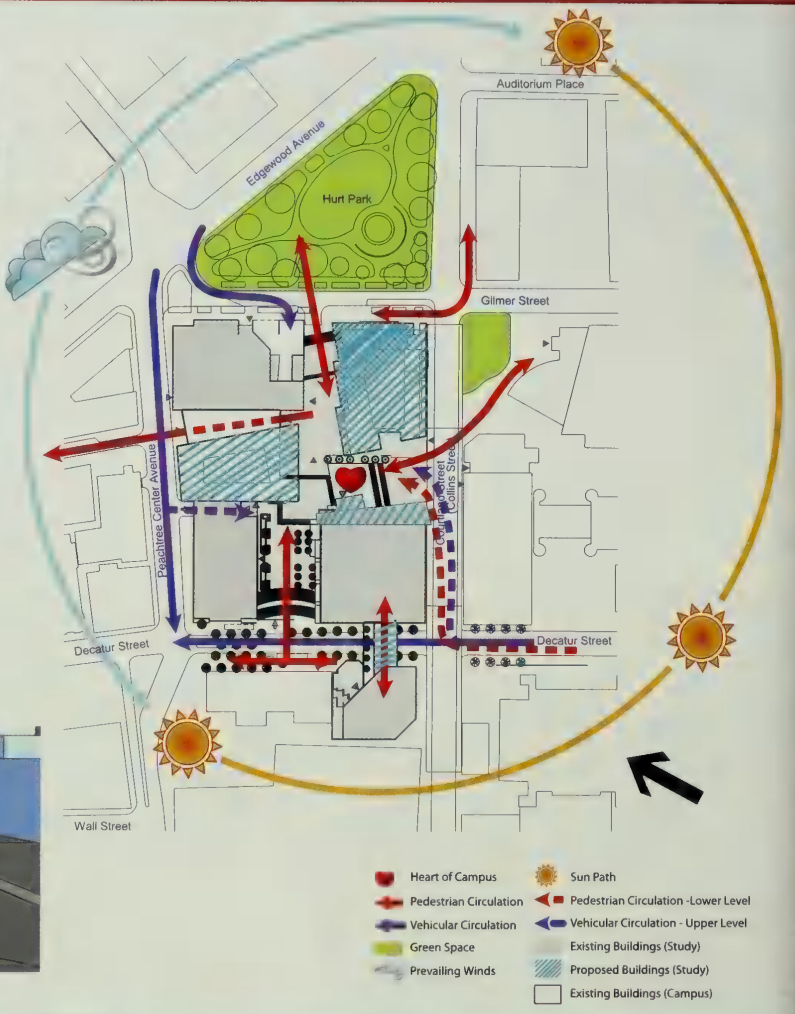


Library Bridge Sun Study for December 22 (plan, above, and elevation, top).

Leo A Daly used visualization and BIM tools to explore the programming and phasing of a project for the Georgia State University campus in Atlanta that includes a library expansion (below) and several new buildings. The tools helped determine the scheme's impact on daylight and pedestrian and vehicular circulation (above and right).



Section through library bridge.



mid-May, with release of a final document slated for early June, according to Deke Smith, chair of the institute's national BIM standards committee.

A particular focus of the NIBS effort is postconstruction accessibility of the building information model so that it could be used by a variety of stakeholders, including insurers, first responders, or facility managers. Some sources worry that the effort is geared too much toward the building's end users to be valuable to designers. But Smith points out that "the true payback [of BIM] is in the building's facility management phase, since it is the longest, typically 50 to 75 years."

Roles and relationships

One barrier to adoption of BIM is not the technology itself, but the implications for changes in the relationship of all the members of a project team. Because BIM allows architects, their consultants, owners, and contractors to share information and expertise more easily and earlier in the life of a project, many proponents see it as a catalyst for use of more integrated delivery methods than design-bid-build. The AIA, the Construction Users Roundtable, and the Associated General Contractors of America are collaborating to better understand the impact on traditional professional roles and liability. Among these groups' initiatives is an effort to create new model contracts to help define responsibilities and address the allocation of risk and financial reward.

The issue of ownership of the data contained within the model is also unresolved. John Marinello, Flack & Kurtz C.I.O., worries about the interpretation of data generated by computational fluid dynamics tools and other complex simulation programs. "We don't want our data manipulated by another consultant," he says.

WITHIN ARCHITECTURE FIRMS, THE NEW TECHNOLOGY IS REDEFINING CULTURE, HIERARCHIES, AND WORK FLOW.

Within architecture firms, the technology is forcing changes in culture and work flow. SHoP's Negro points out that before the firm started using BIM, he and his colleagues would divvy up project responsibility by drawing sheets. Now work is assigned according to a building's major elements, such as the enclosure, the vertical core, or interior partitions.

Although adjustment to this new division of labor can be difficult, Negro and other sources say the interconnected nature of the model's elements enhances communication and reveals potential problems earlier in the design process. "Because we are working on the same model, it encourages interaction more than before," says Eric Watson, AIA, of SmithGroup. Watson is project architect for one of the



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SGL	1/2"	0.30	0.24	0.28	0.22	41	20	20	11	11	34	0.27	0.24	59	56
1/8"	1/2"	0.30	0.24	0.28	0.22	40	19	19	12	11	33	0.27	0.23	58	55
5/32"	1/2"	0.29	0.24	0.28	0.22	40	19	17	12	11	31	0.27	0.23	58	55
3/16"	1/2"	0.29	0.24	0.28	0.22	39	18	16	13	11	29	0.27	0.24	58	56
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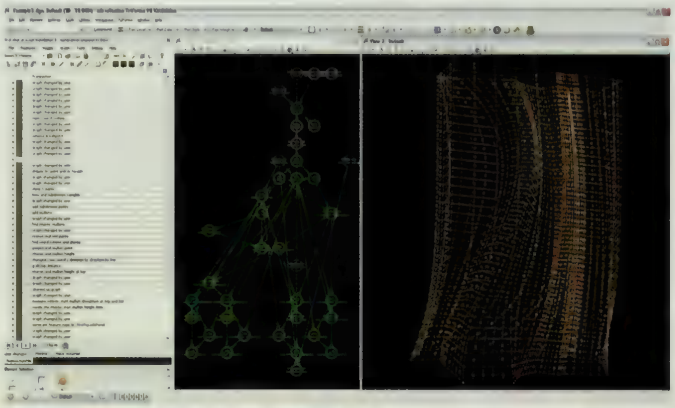
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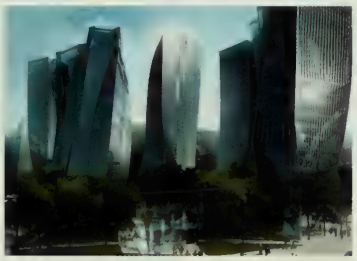
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The curvy geometry of a set of office towers planned for Dostyk, Kazakhstan, is based on an underlying computer code that relates criteria such as view corridors and height. Because of the parametric relationships, adjustments to one factor produce corresponding changes in the others.

firm's five current BIM projects—a 63,000-square-foot life sciences building for Mesa Community College, in Mesa, Arizona.

The BIM process is also blurring distinctions between managers, technical staff, and designers. "There is a breakdown of traditional hierarchical roles to a much more granular level where all team members are important," says Allan Partridge, principal of HIP Architects, an Alberta-based firm in its fourth year of full BIM deployment. "Technologists are being involved much earlier in the work flow," he adds.

For architects and consultants, one of the most exciting aspects of BIM is the technology's potential to collapse separate activities, such as design, analysis, and documentation, into one, although most sources would agree the link is still far from seamless. NBBJ and E/Ye Design, a four-year-old firm based in Troy, New York, and Jackson, Wyoming, are connecting the tasks of geometry rationalization and design in their development of a scheme for a 4.68-hectare (11.6-acre) office park for Dostyk, Kazakhstan. The firms are using Bentley's GC to define the configuration of the complex's curvy towers. The architects have written a script that establishes the relationship between criteria such as view corridors, height, and shape, explains Nona Yehia, E/Ye principal. Because these criteria are interconnected, an adjustment to one factor produces a change to the others, she says. Here, BIM "is an integral part of the design rather than a tool for documentation." ■

AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- Read the article "Transformative Tools Start to Take Hold" using the learning objectives provided.
- Complete the questions below, then fill in your answers (page 191).
- Fill out and submit the AIA/CES education reporting form (page 191) or download the form at archrecord.construction.com to receive one AIA learning unit.

QUESTIONS

1. Proponents of BIM claim it will accomplish all except which?
- **a.** streamline the delivery process
- **b.** lengthen the time to implement change orders
- **c.** ensure better-coordinated documents
- **d.** provide a basis for more accurate construction

2. Using BIM properly should do all except which?
- **a.** result in better-performing facilities
- **b.** result in a faster construction process
- **c.** produce fewer construction claims
- **d.** result in higher construction costs

3. An object-oriented digital representation of a building is which?
- **a.** a collection of lines on the screen
- **b.** a compilation of integrated, dynamic data
- **c.** photos of a model scanned into CAD
- **d.** a prototype produced by a 3D printer

4. Data contained within a building information model could include which of the following?
- **a.** structural characteristics of beams
- **b.** fire rating of partitions
- **c.** warranties for mechanical equipment
- **d.** all of the above

5. Starting this fiscal year, General Services Administration design and construction teams are required to use BIM for which?
- **a.** spatial analysis
- **b.** energy simulation
- **c.** materials quantity analysis
- **d.** scheduling

6. Within architectural offices, work on a building information model is typically assigned to employees according to which?
- **a.** drawing sheet number
- **b.** building elements, such as the enclosure or vertical core
- **c.** drawing type, such as plans, sections, or elevations
- **d.** design phase

7. Which is an example of a benefit of using BIM to design buildings?
- **a.** its capability to help detect conflicts between m/e/p systems and other components
- **b.** its ability to help perform daylight studies and energy analysis
- **c.** its ability to help explore programming issues and urban design implications
- **d.** all of the above

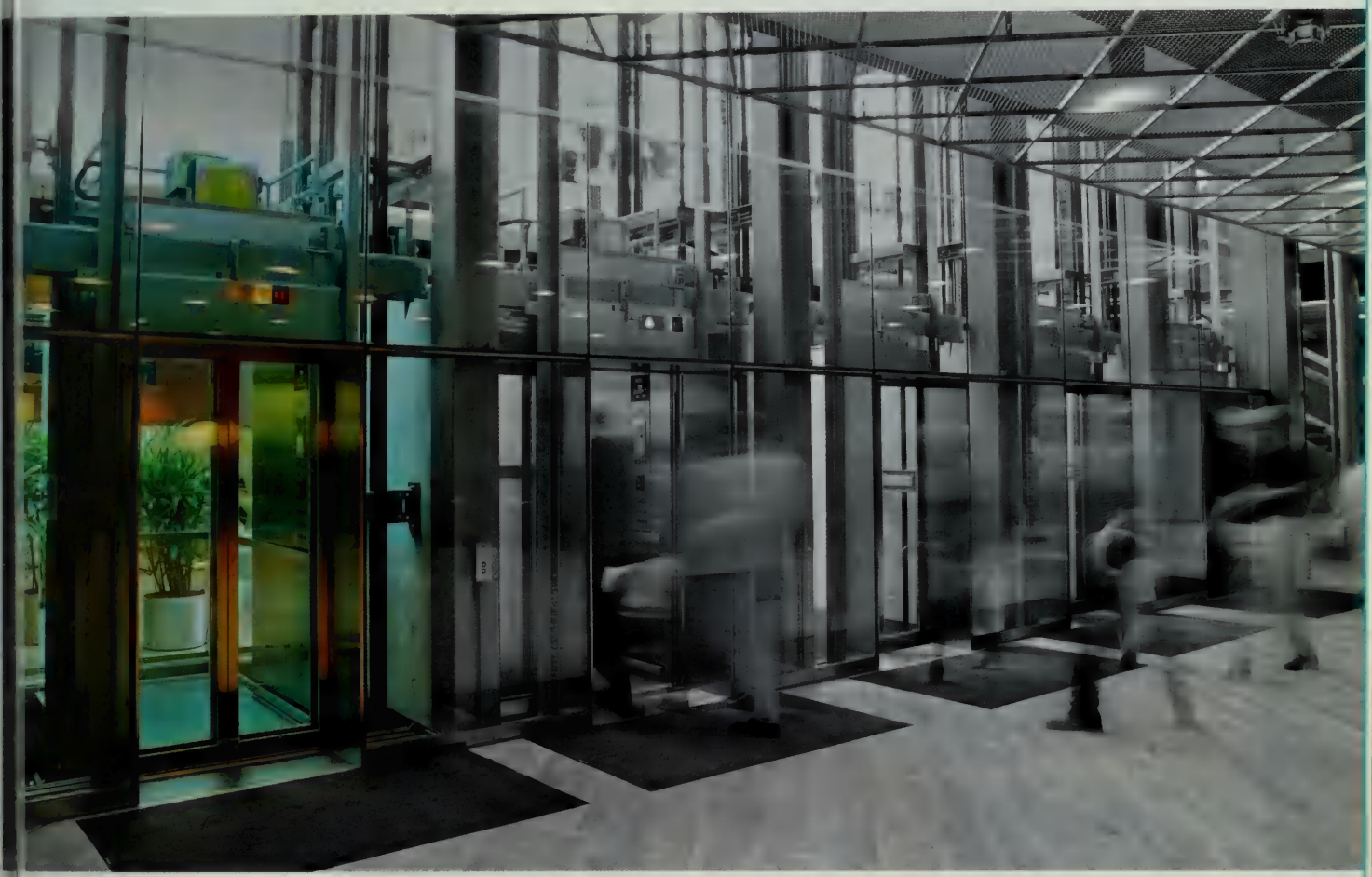
8. An effort of the National Institute of Building Sciences is which?
- **a.** train people to use software
- **b.** increase use of design-bid-build
- **c.** create standards for the organization and format of the information contained within building information models
- **d.** blur the distinctions between managers, technicians, and designers

9. Potential users of data in a building information model postconstruction are which?
- **a.** insurers
- **b.** first responders
- **c.** facility managers
- **d.** all of the above

10. Which of the following is not a barrier to the adoption of BIM?
- **a.** implications for changes in workflow
- **b.** changes in the relationships among members of the project team
- **c.** revealing potential problems earlier in the design process
- **d.** changes in firm culture

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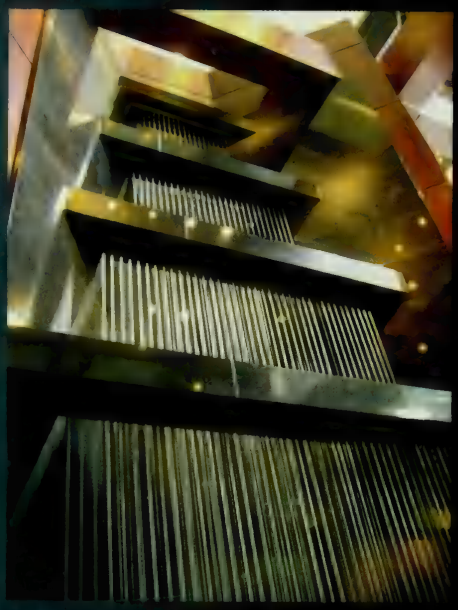
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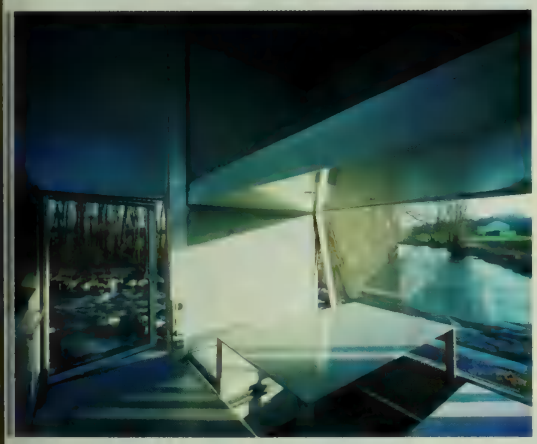
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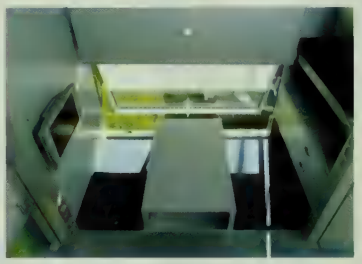
Tech Briefs

A London architect rethinks the **house as a small machine for living** with a cube that nods to airplane design, while elsewhere in the U.K. and Los Angeles, researchers attempt to **print a house** using an experimental fabrication technology that could transform construction









The Micro Compact Home takes cues from airline technology to incorporate electrical outlets, LED lighting, a microwave, and two flat-screen televisions into the 100-square-foot space. The house includes a shower, toilet, sink, and a hot-water heater, in addition to two compact double beds (top left) and dining space for up to five (far left).

A super-small house achieves an ideal state of design integration

Richard Horden looks to a lustrous time in design with his Micro Compact, 10-foot-square houses—a time when it was actually a pleasure to fly in an airplane.

Horden's tightly integrated prefab cubes came onto the European market last summer, retailing for $60,000 installed, and he's handling the production of twelve of them on order from a European client for a project due this fall. The houses are factory-produced in Austria.

The cubes, intended for short stays, reflect Minimalist influences, but Horden says the core ideas come from shuttling routes on commercial airlines. "I was intrigued by how well designed small scale can be," he says. However, it's hard to find inspiration in air travel, with one's knees barked by the seat tray table from Narita to San Francisco. But like airplanes, the 2-ton cubes use only the materials necessary.

Horden's maximizing of small spaces led first to the portable, futuristic Ski Haus—which featured aluminum sheeting, a propane kitchen, solar photovoltaic power—and then to this more fully realized Micro Compact house. Horden teaches at Munich's Technical University, and six of the cubes have been used there for housing. The designer, a principal at London-based Horden Cherry Lee Architects, stays in one himself.

There's no furniture—it's already integrated in the design—no big paintings on the wall, and no piled papers. The plywood-and-aluminum cube is about flat-panel screens and broadband connections, a virtual space that extends the real conditions of the cube. The bed folds down from the ceiling. When the door is closed, the entranceway can be used as the shower. Every space is multipurpose. Placed on-site by a crane, the cubes connect to utilities in minutes. A low-energy version comes equipped with photovoltaics and a wind turbine.

While it's a nod to the hyper-urban stylings of Kisho Kurokawa or William Gibson, Horden's cube can be pictured in much more bucolic settings, such as a weekend cabin by the wooded trout stream. "It's short stay, smart living," Horden says, more teahouse than coffin hotel. "It shows the value of scale."

And with the cube's lighting system of indirect LED strips in 10 fittings, it only takes 53 watts to light the whole thing.

Michael Dumiak

Tech Briefs

As prefabrication sheds its off-the-rack image, automation via 3D printing threatens to transform conventional construction

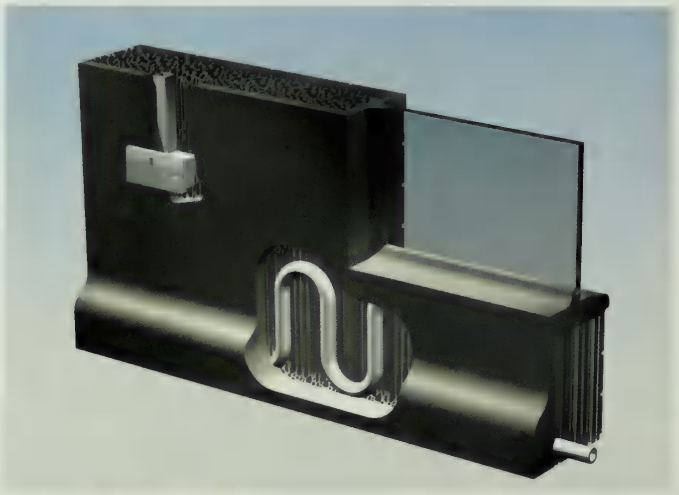
The supersizing of printer technology could significantly extend the limits of concrete. By adapting technologies similar to those used in ink-jet and 3D printers and rapid prototyping machines for large-scale use, researchers in the U.S. and the U.K. are developing automated systems capable of rapidly constructing houses and other structures.

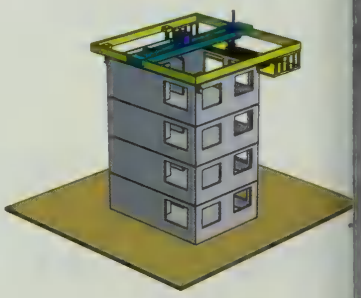
This spring, the University of Southern California's Center for Rapid Automated Fabrication Technologies (USC's CRAFT) plans to test its large-scale 3D printing system by building a 300-square-foot house in a day. The extrusion technology consists of a tank for cement, polymers, ceramic slurry or other wet materials, a nozzle, and several precisely controlled trowels. The machine could ride on a gantry, a robotic unit or crane.

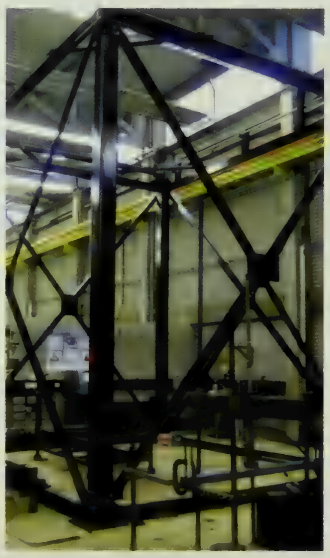
By depositing layers of cementitious materials such as concrete and gypsum—more or less "printing" designs translated from CAD files—the systems promise a cheaper, faster, and less-polluting method of building. Researchers are working on prototypes with an eye toward housing, temporary structures, multistory buildings, and space exploration.

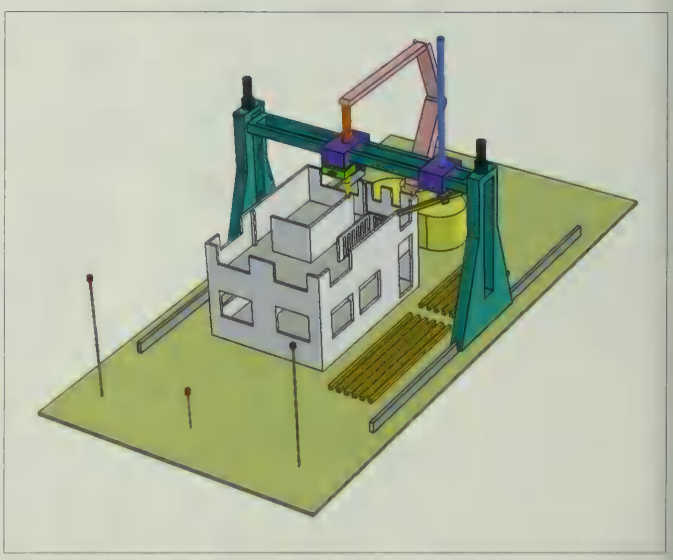
The process promises a number of environmental benefits, including less construction site pollution and waste, and less traffic to the site (given the lower labor requirements). The method can also produce tight, energy-efficient buildings, according to Behrokh Khoshnevis, an engineering professor at USC and a director at CRAFT.

The USC scheme, accurate to a millimeter, could embed strain gauges and other "smart" components within walls and to vary the composition of structures by layering in different materials during construction. Metal reinforcement, plumbing, electrical systems, and tiling can also be automated, according to the USC researchers. While the technology should be production-ready within several years, building practices and codes might be slower to change, notes Khoshnevis.









Plans by USC researchers include a simple gantry (below) for constructing a house, as well as a combination scaffold/gantry for high-rises (above). Loughborough University's gantry (below left) could eventually produce an entirely integrated wall system (left).

In the U.K., Loughborough University's Rapid Manufacturing Research Group is working on a system capable of constructing buildings down to the level of fixtures and built-in furniture. The project, which spans materials research, biomimicry, adaptive buildings, and technologies for monitoring and maintaining buildings, is years away from constructing a complete building.

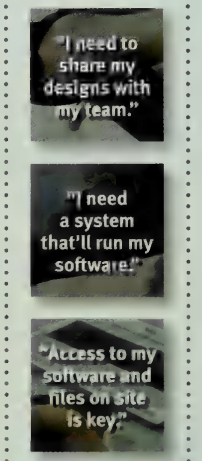
The Loughborough scheme can "print" conduits, ducts, and other service voids, in addition to window frames and, potentially, windows. The project has produced a small room-size gantry system, according to director Rupert Soar, an engineering professor at Loughborough. This scheme allows for the recycling of building parts and entire buildings as conditions dictate, according to the researchers.

The technology has drawn the interest of designers and engineers. "Our main interest is in making structures more efficient by controlling the amount and the distribution of material in the structure according to its needs," said Jalal El-Ali, an engineer at Buro Happold in London. "Printing buildings, using single or multiple materials, would make freeform buildings more [realizable]. We have the knowledge to design such buildings, we just need the tool." *Ted Smalley Bowen*

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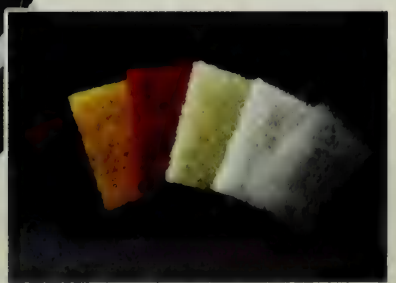
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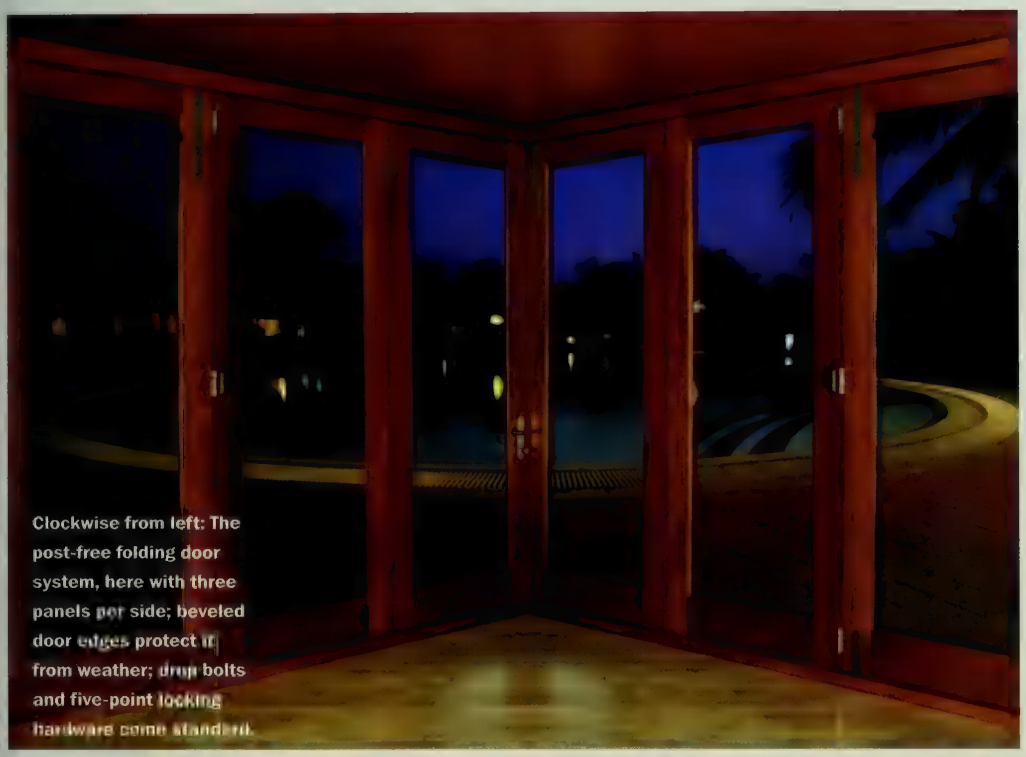
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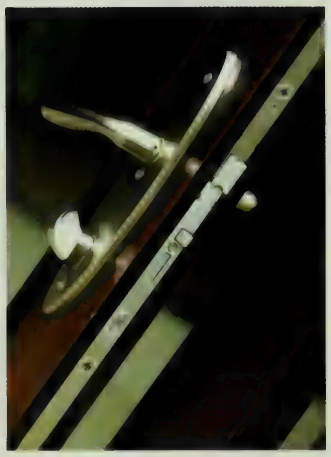
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Product Focus Windows & Doors

Our roundup this month includes products that help **create ornamental centerpieces**, increase safety or security, apply unexpected materials such as **eucalyptus and crystal**, or further open up the building envelope, as with the exterior folding door system featured here. *Rita Catinella Orrell*







Clockwise from left: The post-free folding door system, here with three panels per side; beveled door edges protect it from weather; drop bolts and five-point locking hardware come standard.

Post-free 90-degree folding door system peels back the layer between indoors and out

For the past few years, exhibitors at the International Builders' Show (IBS) have responded to a demand in the residential marketplace for spaces that extend indoor living areas to the outside. Product introductions at the most recent edition of IBS, held last February in Orlando, included outdoor kitchen appliances to replace indoor food prep, cooking, and cleanup; retractable window screens that allow unobstructed views when not in use; and a growing number of exterior folding door systems that open up rooms to patios, gardens, and decks.

Jeld-Wen launched its first folding door system at last year's IBS, and the product's success encouraged the company to take the concept one step further this year. The zero-post, 90-degree Exterior Folding Door System allows designers to open up two wall spans in a room with a single product. The suggested length for each side of the system is three to five panels; longer than that is not recommended. Beveled door edges and double weather strip seal the unit against the elements, even without a structural corner post.

Shane Meisel, product marketing manager for Jeld-Wen, says that architects specifying the system must make sure they have an appropriate header, and depending on the number of door panels, use a supporting I-beam. Working with a structural engineer is also suggested.

Jeld-Wen's first generation folding door system for flat applications offers a DP 45 rating and general Florida building code approvals, while the 90-degree option is currently undergoing third-party testing. The system is available in Jeld-Wen IWP Aurora Custom Fiberglass door panels, as well as custom wood. Panels come stained, painted, or primed with energy-efficient low-E glass as an option. The door frame can be clad with any Jeld-Wen standard color to match windows, and for security the system features drop bolts and five-point locking hardware.

Applications range from high-end single-family homes and condos to commercial projects such as hotels and restaurants. Meisel expects the system to sell well, specifically to customers "who want to commune with nature, or bring the outdoors in." While folding door systems do tend to sell better in temperate climates, he adds, "We sell quite a few in the Colorado/Montana area, the Pacific Northwest, the Northeast, and the Mid-Atlantic. It's more a personality and lifestyle type than a specific region."Jeld-Wen Windows & Doors, Klamath Falls, Ore.
www.jeld-wen.com CIRCLE 210

► Italian entrance

The Graffiti door, designed by architect and Luceplan founder Paolo Rizzatto with the graphics of Italo Lupi, features bas-relief decorations on the panel in three different motifs alluding to letters of the alphabet. Available in a range of depths, the door jamb juts out from the wall and can be used as a support for brackets, hooks, shelves, or wood paneling, or fitted with wires or electronics as needed. Montanari Group, Los Angeles. www.montanarigroup.com **CIRCLE 211**



► Fire-rated metal doors

Now available in an expanded palette of designs, Forms+Surfaces' Architectural Metal Door collection allows specifiers to choose from an array of metal, finish, and pattern combinations while specifying doors with 45-minute, 60-minute, 90-minute, and 3-hour UL fire ratings. Six configurations and sizes up to 4' x 10' are standard. Shown here is the Champagne pattern in stainless steel. Forms+Surfaces, Carpinteria, Calif. www.forms-surfaces.com **CIRCLE 212**





◄ Certified wood alternative

Bieber USA's solid three-ply seasoned eucalyptus is harvested from FSC certified South American plantations. A low-maintenance, renewable hardwood alternative to mahogany and teak options, the custom-designed windows and doors are finished with water-based finishes. Unlike traditional American windows, Bieber's tilt-and-turn functionality allows the windows to open easily and completely inward. Bieber USA, Tustin, Calif. www.bieberusa.com **CIRCLE 213**



◄ Crystal palace

The limited edition Ventura door-glass set features faceted red and clear Strass Swarovski crystals set within rich patina caming. The set includes a 24½" x 65" door-glass unit; two 8" x 65" side lights, and a 66⅞" x 33¾" half-round transom. Each set of Ventura door glass is numbered by the designer, with only 50 sets available. A door frame featuring generous moldings and patina medallions coordinates with the design. ODL, Zeeland, Mich. www.odl.com **CIRCLE 214**

▼ Access at your fingertips

Kwikset introduced SmartScan, the industry's first residential biometrically accessible dead-bolt door lock system, at this year's Builders' Show. Programmable with up to 50 user fingerprints, the lock can be controlled by swiping a valid fingerprint across the sensor, eliminating the need for a key or key code. Using RF electronic imaging, SmartScan reads live fingerprint patterns located beneath the dermal outer surface layer of the skin. Kwikset, Lake Forest, Calif. www.kwikset.com **CIRCLE 215**











▲ Neoclassical revival

The second family to be launched in Weather Shield's Collections product line, the Neoclassical collection of windows and doors mirrors the delicate detailing of Adam and Georgian architectural styles with a narrow sash profile and ⅞" Simulated Divided Lites. Ideal for upscale, traditional custom homes, the line features hard-cast Stone River Bronze hardware in natural nickel or a dark antique oil-rubbed bronze. Weather Shield Windows & Doors, Medford, Wis www.weathershield.com **CIRCLE 216**

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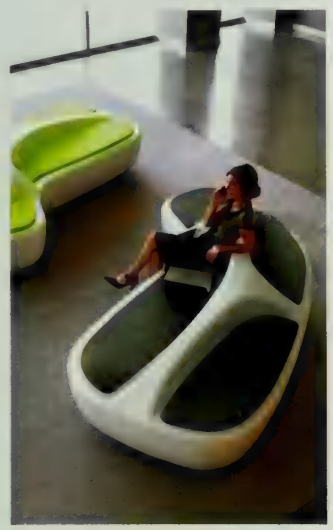
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Product Briefs

► Seating for 10

The Oasis bench, designed by o4i, was inspired by the shapely dunes that the wind sculpts out of sand. Made of a vacuum-formed ABS plastic sheet over a recycled utility base, the bench is 100 percent recyclable, UV-resistant, weatherproof, and fire-retardant. Seating up to 10 people, the multisided bench can be used indoors or out in corporate, healthcare, hospitality, institutional, and educational spaces. Upholstered seat pads are available for indoor use, while outdoors the bench can be safely mounted to the ground if required. Oasis is offered in a range of colors and surfaces. Peter Pepper Products, Compton, Calif. www.peterpepper.com **CIRCLE 217**



► Artistic trench/drain grates

Formed by artisan foundry professionals, Iron Age Designs made its official debut at this year's World of Concrete show. The company creates a range of geometric and botanical patterned grates as well as customized decorative grates made of 80 to 100 percent postconsumer recycled iron. All grates fit industry standard size trench drain bodies and catch basins from major manufacturers and are designed to be ADA compliant. The company also offers custom castings, including trench grates on a radius, tree grates, medallions, and manhole covers. Iron Age Designs, Burien, Wash. www.ironagegrates.com **CIRCLE 218**





◄ Elevator safety system

The Panachrome 3D elevator safety-detection system uses infrared light technology, rather than physical contact, to detect obstructions and direct door movement. In addition, a visual warning system uses red and green illuminated segments along the edges, alerting elevator passengers to door movement. The strips glow green when it is safe to enter and exit, and flash red to signal the doors are about to close. The system complies with ADA requirements, and is suitable for both center-opening and side-opening doors. Janus Elevator Products, Hauppauge, N.Y. www.januselevator.com **CIRCLE 219**



▲ Spring collection

Veritas has added the Texture and Content collection to its ResinArt line of resin panels. The line features not one, but four designers, including New Mexico–based sculptor Ken Leap, Eric Mailaender of the New York architecture and interior design firm Resistance Design, Libby Kowalski of Kova Textiles, and Marybeth Shaw of Shaw-Jelveh Design. Shown in resin (from left to right): Evora, an undyed, granulated cork; Nadia, with seeds bursting from pods; Black Wave, a pattern of undulating black threads; and Lucille, an array of bright wildflowers. Robin Reigi, New York City. www.robin-reigi.com **CIRCLE 220**

► Bricklike finish system

Sto Creativ Brick is a lightweight, customizable brick finish system that can be used over prepared exterior surfaces such as EIFS, stucco, tilt-up, or CMU to give the impression of brick. To install, self-adhering templates are applied over the primer layer to provide the appearance of mortar. The finish layer can be applied in varying thicknesses to achieve the desired stand-out of the brick from the mortar. Brick finishes are available in 800 colors, and the mortars are offered in 42 colors options. Sto Corporation, Atlanta. www.stocorp.com **CIRCLE 221**



► Greener particleboard

Columbia Forest Products has begun producing formaldehyde-free PureBond particleboard, complementing an existing line of formaldehyde-free hardwood plywood products. The particleboard will be manufactured at the company's Hearst, Ontario facility, which will turn the board into finished hardwood plywood and other panels. Columbia is seeking arrangements for other composite-panel manufacturers to incorporate the PureBond adhesive system into their processes. Columbia Forest Products, Portland. www.columbiaforestproducts.com **CIRCLE 222**





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Product Resources: Literature

A vision in tile

Élisabeth Védrenne has authored *Bisazza: Contemporary Mosaics* for the legendary tile house. Beginning with 11 pages of text about the history of the Bisazza family and legacy, the small book is mostly composed of bright, eye-catching, and sometimes dizzying full-page images. Assouline Publishing, New York City. www.assouline.com **CIRCLE 223**

All the bright lights

Allscape's new product and application catalog, *Portfolio 5*, contains model specifications and product highlights for landscape lighting solutions. Floodlights, low-level, building-mounted, step, and other outdoor area lighting are thoroughly illustrated with color photographs and drawings. Allscape, Santa Ana, Calif. www.alllighting.com **CIRCLE 225**

Magazine is the new catalog

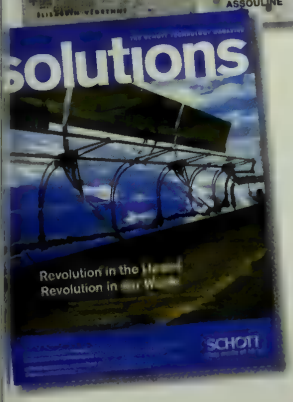
Solutions: The Schott Technology Magazine is the title of Schott's revamped customer publication, featuring innovative companies that use Schott products in power plants, cell phones, LED lamps, cooktops, breweries, flat-screen monitors, telescopes, and more. Schott, Elmsford, N.Y. www.us.schott.com **CIRCLE 224**

The green line

An expanded EnviroGT brochure from InPro Corporation introduces new handrails and wall and corner guards from the company's sustainable product line. All EnviroGT products are manufactured from 100 percent recycled high-density polyethylene and Forest Stewardship Council–certified wood. InPro, Muskego, Wis. www.inprocorp.com **CIRCLE 226**









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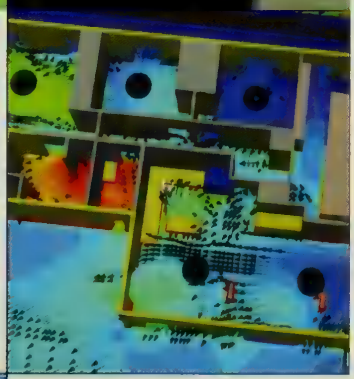
With MEM, Dornbracht presents a new sphere of elemental fitting aesthetics. Its conscious understated approach turns the washing experience into a direct encounter with the element of water. Just like the surge of a clear, natural spring. MEM was designed by SIEGER DESIGN.
To request a copy of our publication the SPIRIT of WATER / bath, please contact: **Dornbracht Americas Inc.**, 1700 Executive Drive South, Suite 600, Duluth GA 30096, Phone 866-818-3199, E-Mail literature@dornbracht.com www.dornbracht.com

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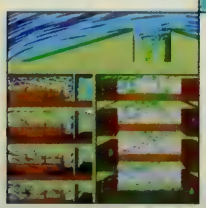
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Product Resources: Web

www.gunlocke.com



The new Web site for casegoods and seating specialist Gunlocke manages to make an enormous amount of information simple and accessible. Its clean and uncluttered pages present product descriptions, pricing, and technical specs in Cap and Excel, 2D and 3D AutoCAD drawings, furniture symbols, finish choices, lead times, warranties, and downloadable images and brochures. Special sections provide important information tailored to the specific needs of dealers, designers, and government sales.



www.amtico.com

Amtico has launched a new Web site to showcase its high-end flooring designs. The company's three major sites, Amtico Home, Business, and International, are kept separate with links providing access between them. Also available are links to the Stratica Web site, with information about Amtico's line of sustainable flooring. Images of flooring designs in real bathrooms, hallways, kitchens, and living rooms are attractive, but with small and inconspicuous links, the site is awkward to navigate.

www.marazzitile.com



Marazzi's newest showroom is open all day, every day at their redesigned Web site. Specifying a product can be stressful, but navigating this site is a breeze thanks to impressively intuitive organization, cool colors, and bold forms. The new SpecWizard, located under specifications in the technology section of the site (arcat.com/specwizard/09300amt/index.htm), has been developed by Marazzi with ARCAT to make writing a Marazzi spec as simple as possible.

www.lightingecosystem.com



To promote its innovative EcoSystem fluorescent dimming solution, Lutron came up with an interactive multimedia Web site, which uses people instead of paragraphs to explain the product. The video components are unobtrusive and can be paused at any time to explore further information through navigational links that never leave the page. Simulated 24-hour office lighting videos during explanatory speeches make the message clear and simple.

For more information, circle item numbers on Reader Service Card or go to archrecord.construction.com, under Products, then Reader Service.

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#9090BN06 List $94
ICC Member $75

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- Masonry Institute of America's (MIA) ***2006 Masonry Codes and Specifications*** focuses on all aspects of masonry and includes key sections of the 2006 IBC® and IRC®. MIA's ***Masonry Design Manual, 4th Edition*** is a great resource featuring code guidelines on virtually every aspect of masonry design.

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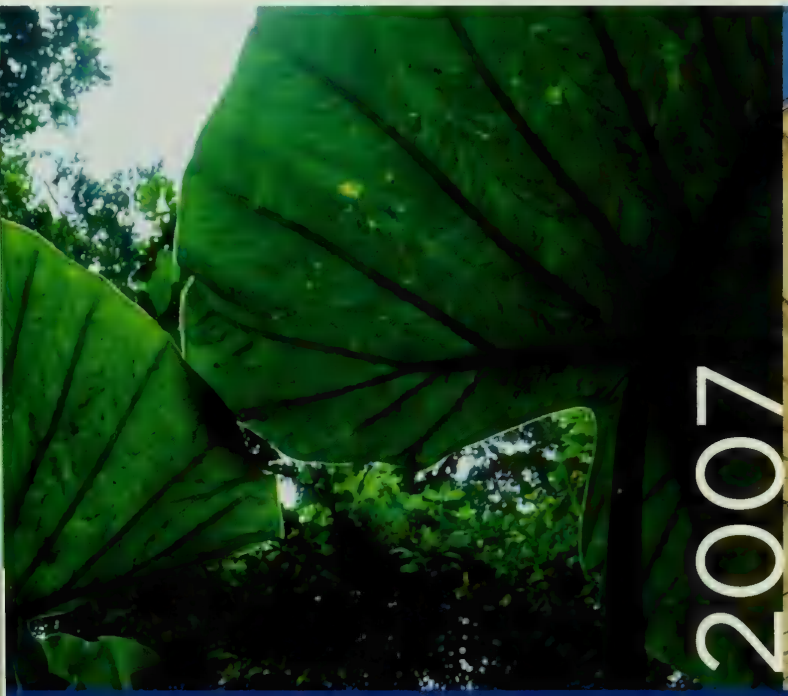
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AIA150

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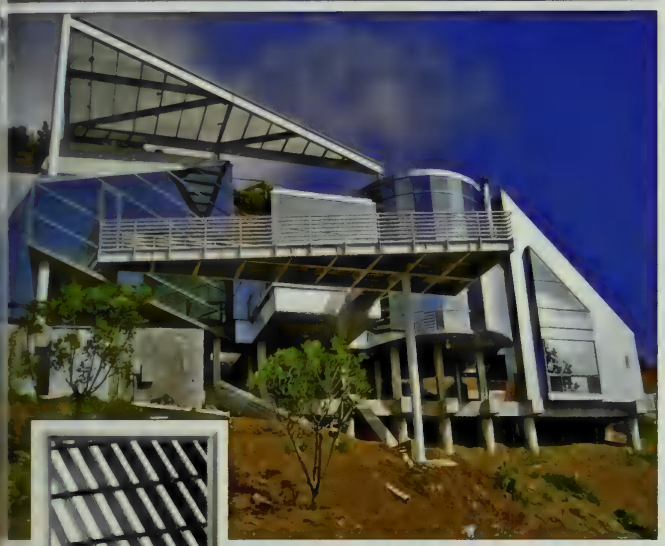
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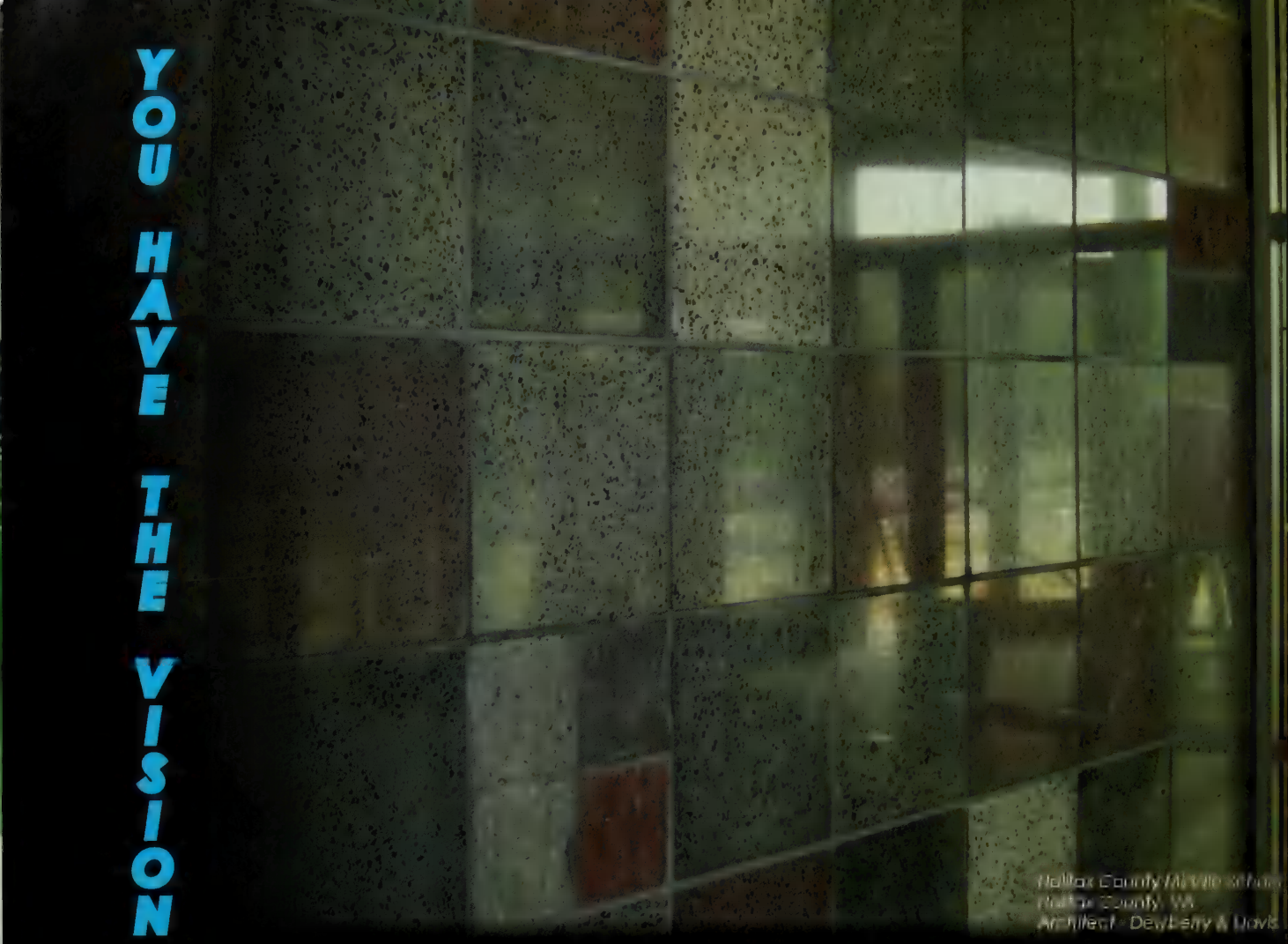


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Halifax County Middle School
Halifax County, VA
Architect: DewBerry & Davis

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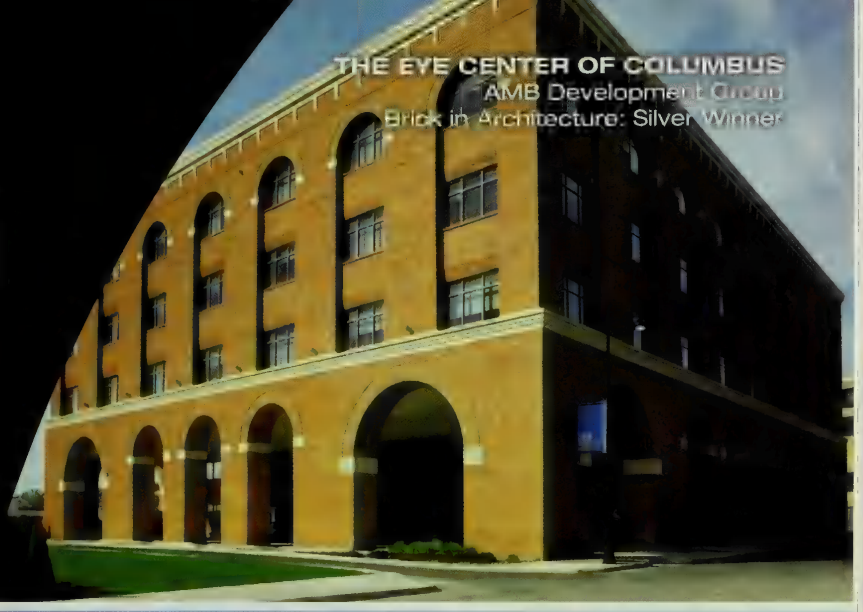
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Dates & Events

New and Upcoming Exhibitions

AIA150

2007 AIA New York Chapter Design Awards
New York City
April 9–July 7, 2007
A showcase of the 2007 award-winning projects in three categories: Architecture, Interiors, and Projects. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

AIA150

NY 150+: A Timeline: Ideas, Civic Institutions, and Futures
New York City
Through June 23, 2007
To commemorate the 150th anniversary of the founding of the American Institute of Architects in New York City, the AIA New York Chapter will feature an exhibition charting the transformation of the city and the profession from 1857 through the present and into the future. Genetic lines tracing the founding of the institute will intersect with various democratic and social movements and the architecture of New York's civic structures. Fifteen buildings and public spaces will be presented with a factual overview and commentary by architects, critics, journalists, authors, and others to illustrate the ideas that define the city's history as well as its future. A preamble will frame the social, cultural, and historical discourse, giving special emphasis to the directions of architecture in the city as imagined within a puritan pastoral democracy. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

AIA150

AIA National 150 Best Buildings Exhibition Opening
Washington, D.C.
April 11, 2007
Visit www.aia.org

Open House: Architecture and Technology for Intelligent Living
Pasadena
April 14–July 1, 2007
This exhibition will offer glimpses into the house of the future as a place for new spatial experiences, systems of sustainability, and sensory enhancements through recent technologies and material developments. It will feature specially commissioned "intelligent houses" by 10 teams of emerging architects and designers from the United States, Europe, Australia, Asia, and Mexico. The research aspect of the design process will be highlighted and will encourage visitors to explore their own ideas about the future in a public forum. At Art Center's South Campus in Pasadena. Call 626/396-2380 or visit www.artcenter.edu.

Devil in the White City Tour
Chicago
Select Fridays and Sundays, April 20–October 28, 2007
The tour is based on Eric Larson's best-selling book and focuses on two events: the World's Columbian Exposition of 1893 and the emergence of America's first serial killer to come to public attention.



A slide presentation is followed by a bus tour of Prairie Avenue and Jackson Park with a visit to many buildings and places identified in the book. At the Chicago Architecture Foundation's ArchiCenter. Call 312/922-3432 or visit www.architecture.org.

Snapshot 007:
Current Houston Design on View
Houston
May 18–June 16, 2007
The fifth open-call exhibition showcasing architecture, urban planning, preservation, landscape architecture, interiors, furniture, and graphics by more than 100 Houston architects and designers. At Lawndale Art Center. Call 713/348-4876 or visit www.rda.rice.edu.

AIA150
Studio @ the Center:
Lighting Design
New York City
June 7–August 4, 2007
This exhibition will highlight the work of 12 students from the High School of Art and Design who are taking part in the intensive after-school program that exposes them to one area of design through interaction with design professionals. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

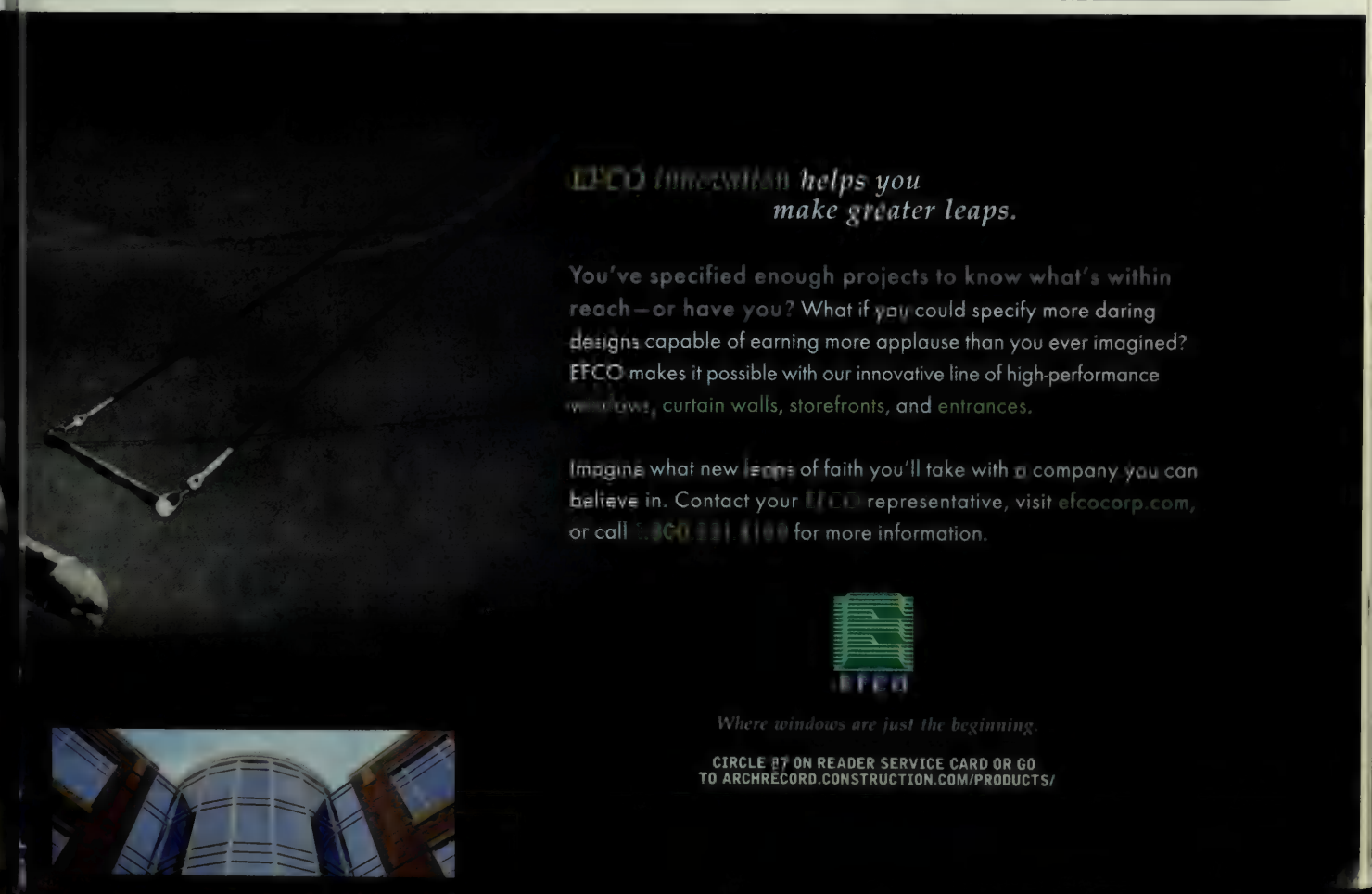
On a Grand Scale:
The Hall of Architecture at 100
Pittsburgh
September 22, 2007–January 13, 2008
In celebration of the 100th anniversary of the Carnegie Museum of Art's Hall of Architecture, the museum will present an exhibition surveying its collection of nearly 150 plaster architectural casts that Andrew Carnegie created specifically for this magisterial space. At the time of the hall's inauguration in April 1907, the museum joined the ranks of prominent American museums exhibiting plaster casts of monuments from around the world. To ensure the hall's relevance to visitors, Carnegie surveyed architects of the day to determine which casts the museum would acquire. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

Ongoing Exhibitions

Architecture Interruptus
Columbus, Ohio
Through April 15, 2007
The Church of Saint Pierre, in Firminy, France, was designed by Le Corbusier and Jose Oubrerie in the early 1960s. Now, after years of interruptions, Oubrerie is bringing the project to fruition. Featuring historical and contemporary photographs and drawings, the exhibition strives to bring the experience of the building to life. At the Wexner Center galleries. Call 614/292-3535 or visit www.wexarts.org.

The Home House Project:
The Future of Affordable
Housing
New York City
Through April 21, 2007
The project challenged artists and architects to design single-family houses using Habitat for Humanity's basic plans as a point of departure. This exhibition presents 100 innovative housing designs that explore affordable housing. At the 69th Street Gallery of the New York School of Interior Design. Call 212/472-1500 or visit www.nysid.edu.

Prefabricated Homes
in America: The Early
20th Century
Mail-order House
New York City
Through April 21, 2007
As early as 1914, consumers were able to acquire prefabricated houses factory-direct through mail-order sources. This exhibition features facsimiles of vintage catalogues and pattern books featuring mail-order houses and plans. At the 70th Street Gallery of New York School of Interior Design. Call 212/472-1500 or visit www.nysid.edu.



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Dates & Events

Zaha Hadid Architects and Eric Owen Moss Architects: Adventures in Kazakhstan
Los Angeles
Through April 22, 2007
This exhibition features the design entries of London-based Zaha Hadid Architects and Los Angeles–based Eric Owen Moss Architects for an invitational competition for Republic Square in Almaty, Kazakhstan, which consisted of a multiuse building complex on a prime lot. At SCI-Arc Library. Call 213/356-5329 or visit www.sciarc.edu.

Grounded: Eisenman Architects
Los Angeles
Through April 22, 2007
This is an installation by world-renowned Eisenman Architects. Most of Peter Eisenman's work has sought to overcome the traditional idea of architecture as a figure on a ground by "figuring the ground": making ground a figure. Some projects carve into the ground, while others manipulate the surface to create a figured ground. This installation considers Eisenman's "groundwork" from one of the earliest projects, the Cannaregio Town Square in Venice (1978), to the Wexner Center for the Arts in Columbus, Ohio (1989), and the City of Culture of Galicia, in Santiago de Compostela, Spain (currently under construction). At SCI-Arc Gallery. Call 213/356-5329 or visit www.sciarc.edu.

Prairie Skyscraper: Frank Lloyd Wright's Price Tower
Chicago
Through April 29, 2007
The Price Tower Arts Center in Bartlesville, Oklahoma, has the distinction of being the only fully realized skyscraper Frank Lloyd Wright ever designed. Built in 1956 and inspired by a tree, at 19 stories tall the building transformed the flat prairie on which it was built, altering the horizon with Wright's bold architectural statement. This exhibition celebrates the 50th anniversary of this milestone in American architecture and features drawings, photographs, building components, and some of the original furnishings designed by the architect. Call 312/922-3432 or visit www.architecture.org.

A House for an Ecologist
Chicago
Through May 5, 2007
The competition sought designs for a live/work dwelling for an ecologist in residence at the U.S. Fish & Wildlife Service, located on the grounds of the National Conservation Training Center in Shepherdstown, West Virginia. Local competition winner Florian Morozan with M3 Architectural Consultants will present his entry. At the John Buck Company Lecture Hall Gallery. Call 312/922-3432 or visit www.architecture.org.

Some Assembly Required: Contemporary Prefabricated Houses
Los Angeles
Through May 20, 2007
This exhibition presents eight projects, by several of today's leading architects of modular dwellings, which take various approaches to prefab—from homes that are built by the owner out of a kit with an instruction manual to those that are delivered fully assembled. At the Museum of Contemporary Art. Call 213/621-1749 or visit www.moca.org.

AIA150
Growing Country, Growing Needs—Federal Architecture and Art
Richmond, Va.
Through May 27, 2007
This one-time exhibition will showcase the new Richmond courthouse, a series of new U.S. border stations, and a selection of other Design Excellence Program projects that illustrate the government's goal to commission inspiring, contemporary civic architecture that reflects and promotes American ideals. At the Virginia Center for Architecture. Visit www.aia.org.

Gritty Brits: New London Architecture
Pittsburgh
Through June 3, 2007
In recent years, a new generation of architects has emerged in London, operating mostly from the postindustrial East End and intimately engaged with the city's contemporary urban condition. Gritty Brits: New London Architecture presents the work of six firms: Adjaye/Associates, Caruso St. John Architects, FAT [Fashion Architecture Taste], Niall McLaughlin, muf, and Sergison Bates architects. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

AIA150
Powerhouse: New Housing New York
New York City
Through June 16, 2007
This exhibition illuminates the people, projects, and public policies that fuel the affordable hous-

ing landscape in New York City, focusing on the New Housing New York Legacy Project (NHNY) competition. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

Open House: Architecture and Technology for Intelligent Living
Los Angeles
Through July 1, 2007
This exhibition includes nearly 100 teams of emerging designers whose work focuses on technology and domestic architecture. The teams were invited to submit new designs that offer real-life solutions that incorporate the concepts of connectivity, well-being, flexibility, and sustainability. At Art Center College of Design's South Campus Wind Tunnel. Call 626/396-2380 or visit www.artcenter.edu.

The 2006 National Design Triennial: Design Life Now
New York City
Through July 29, 2007
Inaugurated in 2000, the triennial seeks out and presents the most innovative American designs from the prior three years in a variety of fields, including product design, architecture, furniture, film, graphics, new technologies, animation, science, medicine, and fashion. On view throughout the museum campus will be the work of 87 designers and firms, ranging from established design leaders such as Apple Computer, architect Santiago Calatrava, and Nike to emerging designers like Joshua Davis, Jason Miller, and David Wiseman. At the Cooper-Hewitt, National Design Museum. For more information, call 212/849-8400 or visit www.ndm.si.edu.

Lectures, Conferences, and Symposia

National Landscape Architecture Month
Various Locations
April 2007
The American Society of Landscape Architects (ASLA) chapters across the country will celebrate with public outreach activities to help communities "Discover Careers in Landscape Architecture," the theme for this year. The month encompasses Earth Day on April 22 and the birthday on April 26 of Frederick Law Olmsted, who founded the American landscape architecture profession. Call 202/216-2371 or visit www.asla.org for further information.

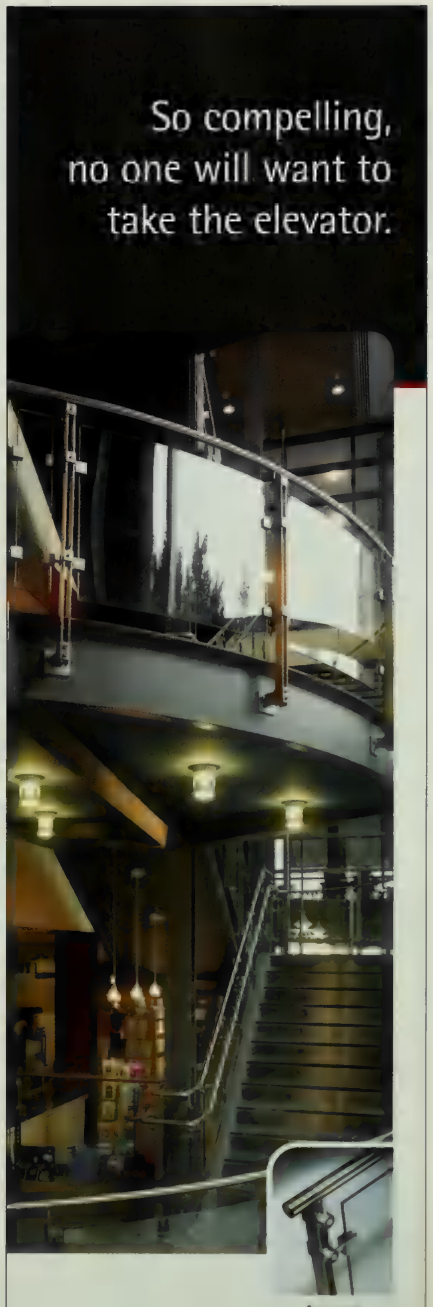
The 2007 Michael Kalil Lecture on Natural and Technological Systems: Majora Carter
New York City
April 2, 2007
Majora Carter will talk on the topic of sustainability and environmental justice. Carter is executive director and founder of Sustainable South Bronx, which supports environmental justice through innovative, economically sustainable projects that are informed by the needs of the community. At Parsons The New School for Design. Call 212/229-8919 or visit www.parsons.newschool.edu.

The 2007 ANSYS U.S. Regional Conference Series: California
San Diego
April 3–5, 2007
Simulation has become a critical element of the product development process. The California meeting will provide an overview of the ANSYS technology road map, updates on new product features and product integrations, a management roundtable, customer presentations, workshops and demonstrations, and a full day of product training. Special content for health care, electronics, ventilation, aerospace/defense, and general industries will include user presentations and demonstrations. At the San Diego Marriott Hotel & Marina. Visit www.fluent.com/worldwide/usa/support/ugm07/ca.htm.

AIA150
Think New York: A Ground Zero Diary
New York City
April 5, 2007
With some distance, taking a look at the process which led to the selection of a master plan for Ground Zero offers insights into how obstacles confronting planners, builders, and civic agencies today can be addressed. In his lecture, Rafael Viñoly will lecture using his book as a narrative. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

Pratt Brooklyn Lecture Series
Brooklyn, N.Y.
April 5, 16, and 19, 2007
Included in the roster for the Spring 2007 Lecture Series are Henry Cobb on "The Skyscraper as Citizen: The Public Life of Private Buildings"; Henry Smith-Miller on "Resolution"; and Fumihiko Maki on "On Scenery." At Pratt's School of Architecture, Higgins Hall Auditorium. Call 718/399-4304 or visit www.pratt.edu.

Manufacturing Material Effects: Rethinking Design and Making in Architecture International Symposium
Indianapolis
April 6–7, 2007
Leading thinkers, designers, and makers from around the world will discuss collaborative design and production practices based on innovative and



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Dates & Events

experimental processes of material exploration. The symposium will examine the various levels of engagement and the new forms of architectural production that bring designers deeper into the complexities of making, assembly, and material formulation. Call 765/289-1241 or visit www.bsu.edu.

AIA 150

New Housing New York: Panel Discussion with Winning and Runner-up Teams
New York City
April 9, 2007
A presentation of the New Housing New York Legacy Project, which illuminates the people, projects, and public policies that fuel the affordable housing landscapes in New York City. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

The Charles H. Atherton Memorial Lecture
Washington, D.C.
April 10, 2007
The Charles H. Atherton Memorial Lecture program commemorates the life and legacy of Charles Atherton, who for almost four decades served as Secretary of the U. S. Commission of Fine Arts. The lecture series is dedicated to providing a forum for discourse on the planning and design of Washington, D.C., and will examine the architectural, historical, and natural context of the city and its development to promote visionary planning and design excellence in the nation's capital. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Greenmaker for Homeowners
Chicago
April 10, 2007
A part of the Sustainable Architecture Lunchtime Lecture Series. As the market for environmentally friendly materials continues to grow, the number of companies offering these products follows suit. Greenmaker Supply Company is a Midwestern green building supply company, serving homeowner and building professional alike. Ori J. Sivan will introduce Greenmaker's mission and its offerings, and attendees will receive an insider's view of the environmental benefits of going green. At the John Buck Company Lecture Hall Gallery. For additional information, call 312/922-3432 or visit www.architecture.org.

AIA 150

AIA NY 2007 Design Awards Luncheon
New York City
April 11, 2007
Award recipients are recognized during the event that brings together 700 leaders in the design world to honor exceptional achievements in design excellence in the three categories: Architecture, Interior Architecture, and Projects. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

AIA 150

Keynote Address and Reception: Michael Rotondi
Milwaukee
April 12, 2007
A lecture and reception with Michael Rotondi, FAIA, of RoTo Architecture during National Architecture Week at UWM-School of Architecture and Urban Planning. The event caps a week-long celebration of architecture and community. For more information, call 414/410-2813 or visit www.aiaw.org

AIA 150

Rejuvenation of American Cities on the Water
Miami
April 12–15, 2007
The AIA Committee on Design hosts a three-day conference exploring the current urban landscapes of Miami and future design opportunities around Miami and its waterways. At the Standard Hotel. Visit www.aia.org.

RDA Annual Architecture Tour: Southampton
Houston
April 14–15, 2007
As one of Houston's most memorable early-20th-century planned neighborhoods, Southampton is distinctive because through the decades houses of architectural significance have continued to be built there. The tour will feature seven houses in this neighborhood, to acquaint viewers with the best examples of architecture, interior design, and landscape design. Call 713/348-4876 or visit www.rda.rice.edu.

Multicultural Modernism
Palm Springs
Through April 15, 2007
A retrospective exhibition, featuring the work of Steven Ehrlich Architects. At the Palm Springs

Art Museum. Call 760/325-7186 or visit www.psmuseum.org.

CAF Celebrates Earth Week
Chicago
April 16–20, 2007
A week of lunchtime programming in honor of Earth Week includes the following topics: "The Green Greystone: Increasing the Affordability and Sustainability of Chicago's Historic Greystone Housing"; "Environmental Policy: Reduction of Global Warming through the Built Environment"; "The Green Exchange: Building a Business Community for the Advancement of the Green Marketplace"; "Strategies and Design: Achieving 50% Energy Consumption in Commercial Buildings"; and "Sustainability and the Kohl Children's Museum." Call 312/922-3432 or visit www.architecture.org.

Preservation Maintenance: Understanding and Preserving Historic Buildings
San Francisco
April 17–18, 2007
This seminar is held by the National Preservation Institute (NPI) and taught by nationally recognized educators, consultants, and practitioners in historic preservation, archaeology, architecture, landscape architecture, conservation, historical research, restoration, and cultural resource management. Visit www.npi.org for further information.

Coverings
Chicago
April 17–20, 2007
The Coverings tile and stone exposition features 1,200 exhibitors from more than 50 countries and attracts more than 33,000 distributors, retailers, fabricators, contractors and specifiers, architectural and design professionals, builders and real estate developers. The expo serves as a resource for continuing education for all categories of attendees, with informative, accredited seminars and live demonstration sessions conducted throughout the four days. At the McCormick Place Convention Center. For more information on attending or exhibiting, call 703/683.8500 or visit www.coverings.com.

Sally Walsh Lecture
Houston
April 18, 2007
A collaboration of the Rice Design Alliance, The Houston Architecture Alliance, and the American Institute of Architects, Houston, this lecture is dedicated to the memory of one of Houston's most distinguished interior designers. At Brown Auditorium, The Museum of Fine Arts, Houston. Call 713/348-4876 or visit www.rda.rice.edu.

Downtown Third Thursdays Lecture Series
New York City
April 19, 2007
The series celebrates Lower Manhattan's architectural treasures and history by presenting discussions with best-selling authors and world-renowned experts in thematically connected settings. Mary Dierickx, architectural preservationist and author, will speak on the topic of "Forgotten Splendor: Restoring Downtown's Historic Architecture." At Federal Hall National Memorial. For additional information, visit www.downtownny.com/third.

Design Showcase 2007
Newark, N.J.
April 19, 2007
This is a networking event, recruitment fair, and exhibition for the real estate and design communities. Industry sponsors will promote their goods and services; architectural firms will recruit students; and alumni will showcase their designs. At the New Jersey School of Architecture at NJIT. For more information, call 973/596-5531 or visit www.njitdesignshowcase.com.

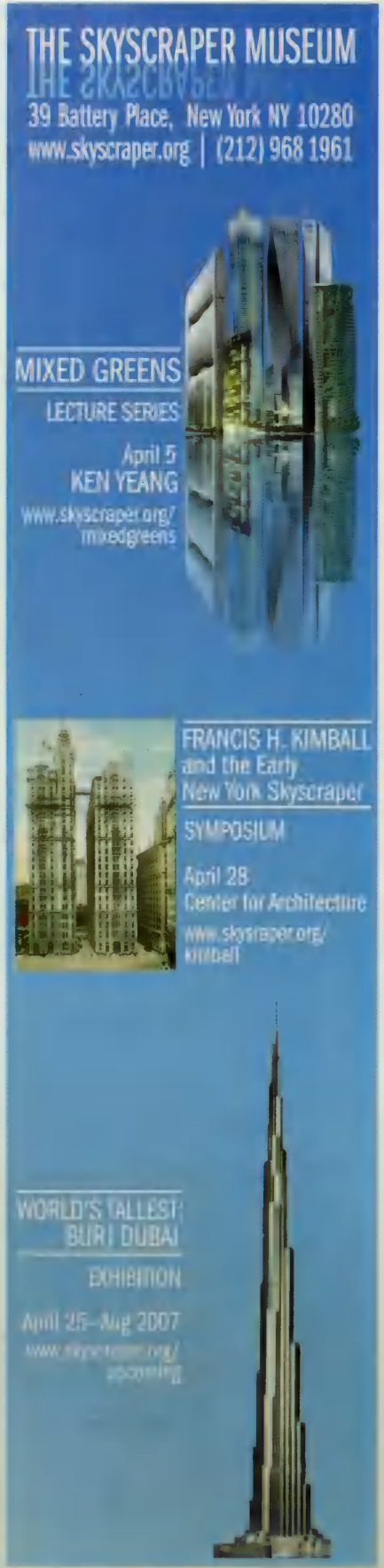
AIA150
Brandism Series: Signature as Brand
New York City
April 24, 2007
Signature-branded buildings, instantly linked to the prestige and aptitudes of their authors, transform the star-power of the architect into a material commodity. As more and more star architects are being hired for their selling potential, can architects maintain innovative and creative practices in the economic pressures of facsimile? At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

The Rhodec ASID Student Chapter Interior Design Educational Symposium
Online
April 27–28, 2007
An opportunity to enhance learning by participating in "real-time discussions" with interior design professionals and educators from around the globe. Topic discussions related to green issues, residential and commercial design, lighting, and computer-aided-design programs will all be presented by experienced professionals and educators. For more information, visit: http://www.geocities.com/rhodec_asid_sc_events/2007_design_day_symposium.htm l.





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Dates & Events

AIA150

AIA 2007
National Convention and
Design Exposition
San Antonio
May 3–5, 2007
The convention theme, "Growing Beyond Green," spotlights sustainable design, how you can green your projects, educate your clients, and reduce the impact buildings have on the environment. Visit www.aiaconvention.com.

Greening Chicago's Municipal Buildings
Chicago
May 8, 2007
This is a part of the Sustainable Architecture Lunchtime Lecture Series. Chicago's city government has made a significant commitment to greening its facilities. Join Department of General Services Architect Andrea Love as she offers an overview of several projects both completed and in progress. At the John Buck Company Lecture Hall Gallery. Call 312/922-3432 or visit www.architecture.org.

BKLYN DESIGNS 2007
Brooklyn, N.Y.
May 11–13, 2007
Celebrating its five-year anniversary, the show will take place in multiple venues throughout the DUMBO neighborhood, including St. Ann's Warehouse and the Smack Mellon Gallery. This year will also mark the launch of BKLYN DESIGNS +, a new cash-and-carry accessories market. Call 718-243-1414 or visit www.bklyndesigns.com.

GPD China 2007
Shanghai, China
May 14–15, 2007
This conference, with the theme, "Production Process Efficiency and Quality—From Design to Construction," takes place just before the China Glass Exposition, Glass Processing Days. Call 358 3 372 3225 or visit www.gpd.fi.

Downtown Third Thursdays Lecture Series
New York City
May 17, 2007
The ongoing series celebrating Lower Manhattan's architectural treasures and history will feature Barbara Christen, architectural historian and Cass Gilbert scholar, speaking on "Cass Gilbert and History: The Past as Present." At the New York County Lawyers' Association. For more information, visit www.downtownny.com/third.

Architecture Camp
Pittsburgh
June 25–August 17, 2007
Architecture Explorations, a series of one- and two-week camps dedicated to architectural design, construction, form, and function, and presented in collaboration with Carnegie Mellon University's School of Architecture, are available for children ages four to 13, as well as high school students. The architecture camps are held at Carnegie Mellon University's architecture studios and in the Carnegie Museum of Art's Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

Competitions

Open Architecture Prize
Deadline: Ongoing
The $250,000 Open Architecture Prize is the largest prize in the field of architecture and is designed to be a multiyear program that will draw competition from design teams around the world. Each year, a winning design will be selected from a field of low-cost, sustainable design projects and built in a selected community. The first project for the Open Architecture Prize will be an "e-community center," a centralized building equipped with Internet connectivity solutions designed to enable an entire community to access the transformative power of the Internet. The winning designs will be built as part of the prize and in alignment with the 50x15 Initiative, a program founded by AMD to connect 50 percent of the world's population to the Internet by 2015. For more information, visit www.50x15.com.

Grangegorman Architectural Competition
Competitions Deadline: April 2007
An international architecture competition for the development of a modern new campus, along with health and other facilities at Grangegorman, a 74-acre site close to the city center of Dublin. This invitation is open to all architectural firms, joint ventures, or consortia of architects, as eligible under EU Directive 2005/36/EC or comparable registration recognized by a national government. Visit www.grangegormandevelopmentagency.ie.

Envisioning Gateway: A Public Design Competition for Gateway National Park

Submission Deadline: May 7, 2007

An international public design competition to create a new vision for Gateway National Recreation Area, a 26,000-acre national park located in New York. The goal is to generate innovative, visionary, and compelling designs that reflect the area as a regional resource and national environmental asset. Visit www.vanalan.org/gateway.

AIA Columbus Announces Transit Design Competition

Deadline: May 29, 2007

The competition will generate dialogue about the possibilities for the role of public transportation in Columbus with special emphasis on illustrating how multiple transportation modes can work together to provide a complete network that connects citizens with their community and sparks economic development. The competition will look for solutions for three specific sites prime for transportation infrastructure enhancements. For additional information, visit www.columbusrewired.org or call 614/469-1973.

Shrink This House

Deadline: June 15, 2007

This competition is open to all architects and architecture students. The winning entries will be published in the September-October issue of Florida Insideout Magazine. The program challenges the participants to take a 5,687-square-foot, two-story modern house going up in Miami Beach and, in expectation of high energy prices and an aging population in 2025, shrink it, creatively, to 2,000 square feet. For images, floor plans, and specs, visit www.floridainsideout.com or call 305/532-7027.

Heated Issue

Deadline: June 17, 2007

This competition asks participants to create an educational campaign to raise public awareness of the problem of global warming and the contribution of our daily lifestyle and activities to this phenomenon. The aim of the campaign is to provoke people to think about the issue and how their individual consumer choices and energy consumption enter into the equation. To learn more, visit www.design21sdn.com.

Child's Play

Deadline: June 17, 2007

This competition focuses on children and asks designers to create an affordable object (or objects) that encourage children to cultivate their own imagination and creativity. The function is open to interpretation and the objective of the design should be to encourage exploration and to inspire a child to derive his/her own associations and invent their own interaction or way of playing with the object. Visit www.design21sdn.com.

Shelter Me

Deadline: June 17, 2007

In the past two years, widespread catastrophic events have called forth large-scale relief efforts throughout both urban and rural areas of the world. Shelter Me challenges designers to present a cost-effective short-term shelter that is affordable, lightweight, strong, and easily deployed. Visit www.design21sdn.com.

21st International Excellence on the Waterfront Awards

Deadline: June 29, 2007

This program will honor waterfront projects, plans, citizen efforts, and student awards. Winners will be announced on November 2 during the "Urban Waterfronts 25: the Next Wave" conference at the Seaport Hotel in Boston. For program details and entry forms, call 202/337-0356 or visit www.waterfrontcenter.org

Just Jerusalem

Deadline: December 31, 2007

This competition invites participants worldwide to submit urban plans and other creative works that consider novel ways to transform this fractious city into a place where contending ideas and citizenries coexist in peaceful ways. An international panel of diplomats, researchers, and professionals will jury the competition. The winning participants will be awarded fellowships at MIT, a prize equivalent to $50,000. Visit www.mit.edu/cis/jerusalem2050/.

Project New Orleans Call for Submissions

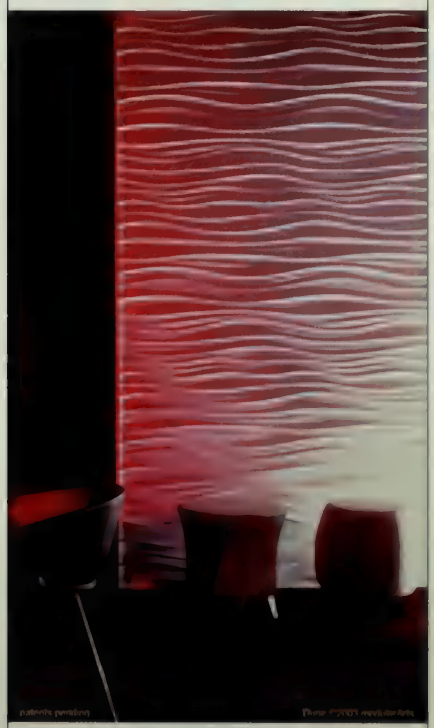
Ongoing

Project New Orleans is seeking to compile a record of all architectural and planning proposals created for the post-Katrina rebuilding of New Orleans. Submissions are welcome, both written and graphic, from the architectural to the regional, and from all engaged in thinking about the future of the city in physical terms. Visit www.project-neworleans.org.

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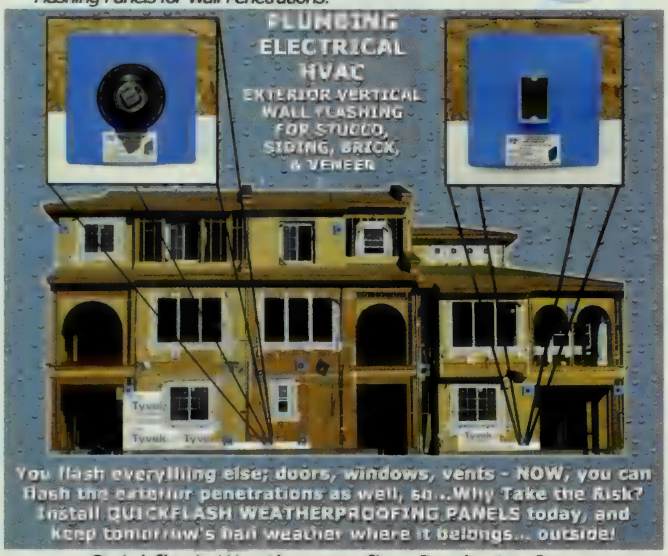
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For applications and further information, visit *www.rvatr.com*

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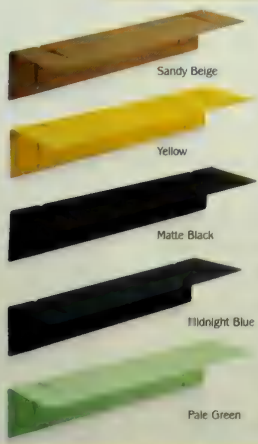
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Program title: "Transformative Tools Start to Take Hold," Architectural Record (04/07, page 155). 047EDIT1

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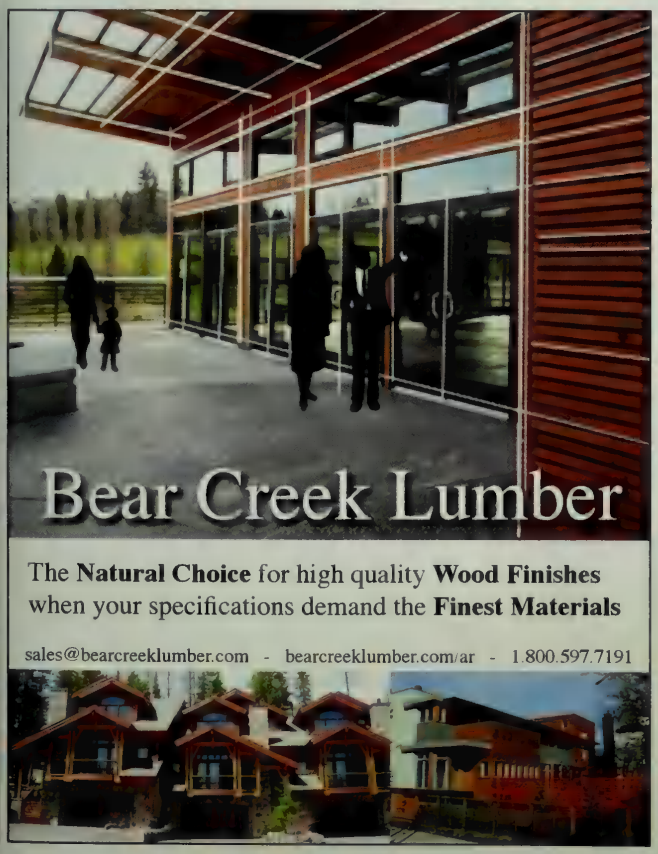
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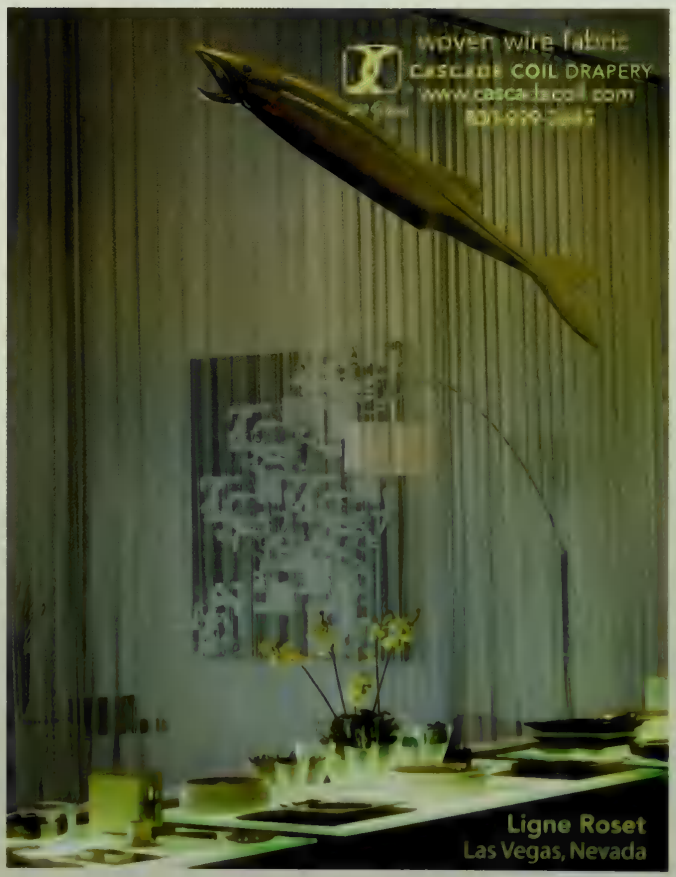
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ARCHITECTURAL RECORD **CALL FOR ENTRIES**

Record Interiors 2007

The editors of ARCHITECTURAL RECORD announce this year's RECORD INTERIORS awards program. Entry is open to any architect registered in the U.S. or abroad. Of particular interest are projects that incorporate innovation in program, building technology, and use of materials. (Note: If the architect also designed the building exterior, we will not consider the project for our Interiors issue.) The entry fee is $65 per submission; please make checks or money orders payable to ARCHITECTURAL RECORD. (Sorry, we cannot accept credit cards or wire transfers.) Submissions must also include plan(s), section(s), photographs (prints or large-format transparencies, but **no** slides), a brief project description, and this official entry form—all **firmly bound** in a 9-by-12-inch folder. Ring, spiral, perfect, or book binding, as well as portfolios with attached sleeves are all acceptable options, but entries that arrive as a collection of loose pages will be disqualified. Your submission must be postmarked no later than April 30, 2007. Winning entries will be featured in RECORD INTERIORS 2007. Other submissions will be returned or scheduled for a future issue. Kindly allow 10 weeks for notification. Please be sure to enclose a self-addressed envelope with appropriate postage or return air bill.

Name of firm:_____

Address:_____

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Contact person:_____

Name of project:_____

Location of project:_____

Type of project *(i.e. residential, restaurant, retail, etc.)*:_____

If previously (or scheduled to be) published, please include a copy of the article and state the name of the magazine or newspaper with the publication date:_____

Agreement: We will not offer this project for consideration by another national publication during the 10-week review period at ARCHITECTURAL RECORD.

Signature:_____ **Date:**_____

Print Name:_____

Submissions should be mailed to:
Linda Ransey • RECORD INTERIORS • ARCHITECTURAL RECORD
Two Penn Plaza • Ninth Floor • New York, NY 10121

This form must be included with your submission. If you have any questions, please e-mail Sarah Amelar at sarah_amelar@mcgraw-hill.com or Linda Ransey at linda_ransey@mcgraw-hill.com.



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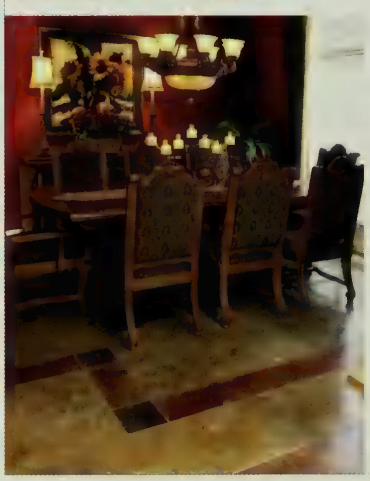
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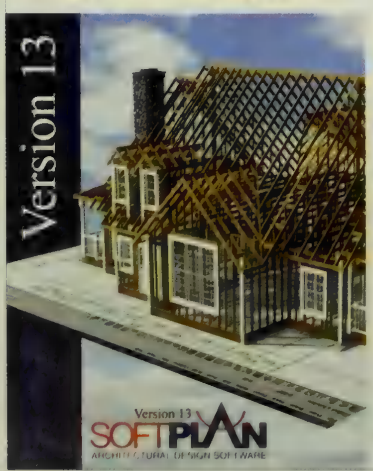
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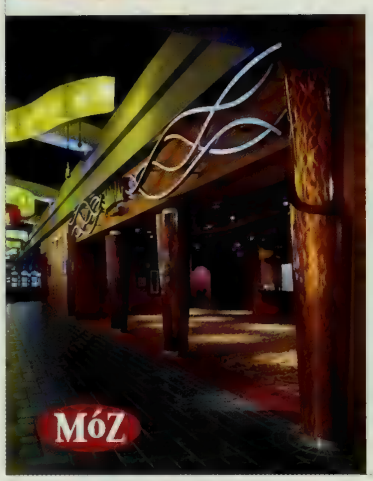
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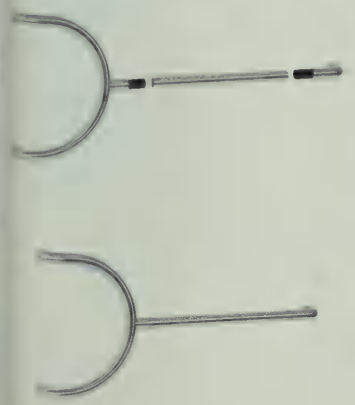
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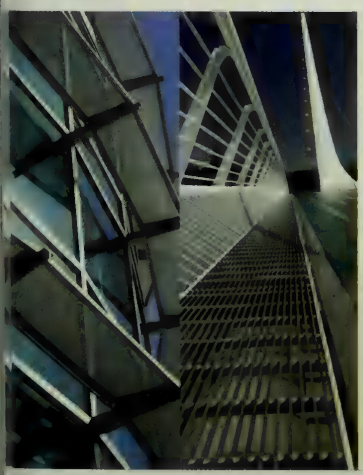
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Structural Framing Solutions

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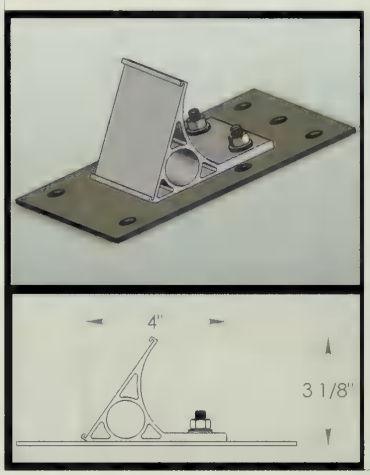
TimberStrand® LSL is one part of a complete and integrated package of framing materials available from iLevel™ by Weyerhaeuser—from foundation to rooftop—which include trusted products and brands such as Trus Joist® Parallam® parallel strand lumber (PSL), TJI® joists, Structurwood® panels and Weyerhaeuser Premium Joists™.

888-iLEVEL8
www.iLevel.com

Circle Reader Service #162

Extruded Aluminum Snow Guard

Alpine SnowGuards



Alpine SnowGuards' #90 snow guard can be used on just about any roof. It accepts a color insert to match the roof. A stainless steel base plate allows this snow guard to be used on membrane or metal roofs. Without the base plate it can be used on most shingle roofs.

888-766-4273
www.alpinesnowguards.com

Circle Reader Service #165

Columns, Balustrades & Cornices

Melton Classics



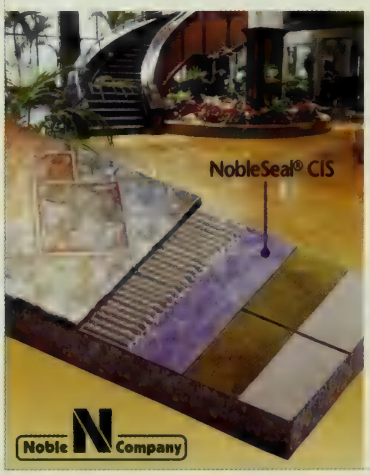
Melton Classics provides the design professional with the most comprehensive selection of quality architectural products in the industry, including architectural columns, balustrades, mouldings, cornices, and a wide array of architectural elements. Architectural columns are available plain or fluted, load-bearing or column covers, round or square in fiberglass, fiberglass/marble composite, synthetic stone, cast stone, GFRC, and wood for paint or stain. Melton Classics offers a maintenance free balustrade product ideal for any application.

800-963-3060
www.meltonclassics.com

Circle Reader Service #163

Helps Prevent Cracked Tile

Noble Company



NobleSeal® CIS is a sheet membrane that protects thin-set ceramic and stone tile from cracking. CIS can be used over common substrates including gypsum underlayments and many wood sub floors. It's a proven performer with millions of square feet installed. CIS has been tested for "System Crack Resistance" in accordance with ANSI A118.12, and is rated "High Performance". Noble Company also produces sheet membranes for waterproofing and sound control. For more information, call 800-878-5788 or visit www.noblecompany.com.

800-878-5788
www.noblecompany.com

Circle Reader Service #166

Coconut Palm Flooring & Plywood

Smith & Fong



Durapalm is made from 100% reclaimed plantation-grown coconut palms. Ranging in color from dark to medium-red mahogany and containing no added formaldehyde, these durable and uniquely beautiful products are available in tongue-and-groove planks as well as architectural grade sheet goods.

866-835-9859
www.durapalm.com

Circle Reader Service #164

Extreme Performance Insulating Glass

AZON USA INC.



Warm-Light® spacer for insulating glass provides a more comfortable interior environment, reduces thermal conductivity and condensation on the glass surface while lowering utility costs. Azon is the global leader in developing technology for the manufacture of thermal barrier aluminum fenestration, commonly referred to as the pour and debridge method.

800-788-5942
www.warmedge.com

Circle Reader Service #167

TO ADVERTISE: Contact Deidre Allen
T: (212) 904-2010 / F: (609) 426-7136
deidre_allen@McGraw-Hill.com

Stained Glass for Hurricane & Earthquake Codes

Bovard Studio Inc.



Bovard Studio Inc. Stained Glass has developed a proprietary process for laminating stained glass onto large panels of 1/2-in. laminated tempered glass to meet hurricane and earthquake codes. Pictured: West Angeles Cathedral's 108-ft.-high stained glass tower with its 652-ft.-long by 8-ft.-high stained glass clerestory band. Visit their Booth #17176 at the 2007 AIA Convention in San Antonio, TX, May 3-5, 2007.

800-452-7796
www.bovardstudio.com
AIA Booth #17176

Circle Reader Service #168

Translucent Daylighting

Kalwall Corporation



From a world leader in translucent daylighting comes over 50 years of innovation and performance. Skylights of every imaginable configuration, from massive Clearspans of 150-ft. to small Pyramids. Curtainwalls and Window Replacement Systems. Kalwall is renowned for its balanced, diffuse daylight that fills any space with glare-free, shadow-free daylight. Kalwall Systems offer extensive support services such as daylight modeling and fully meet the most demanding code and performance testing with exceptional structural integrity. Green and LEED®.

800-258-9777
www.kalwall.com

Circle Reader Service #171

Custom Sized Shoji & Doors

Cherry Tree Design



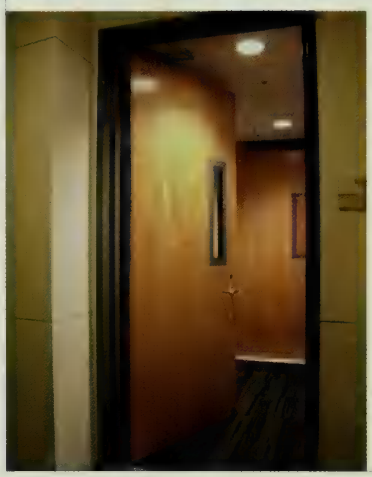
Consider Cherry Tree Design's 80-in., 96-in. or custom sized shoji and doors to lend beauty and functionality to a broad range of interior decors. Their new 96-in. stock shoji is a perfect solution for a high ceiling room or large commercial space. For closet doors, room dividers, pocket doors or patio door coverings, over 90 different shoji packages are offered and include everything you need for installation.

800-634-3268
www.cherrytreedesign.com/ar.html

Circle Reader Service #169

Special Purpose Doors & Windows

Krieger Specialty Products



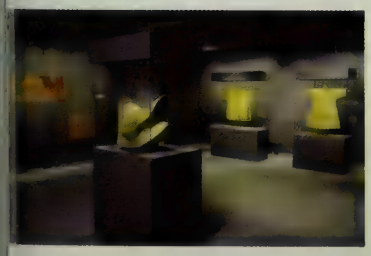
Krieger doors and windows can be manufactured for various sizes and performance requirements, including acoustical, bullet resistance, blast resistance, thermal protection, radio frequency shielding and hybrid combinations. Various finish and hardware options are available, and frames can be custom made to fit any wall configuration.

800-251-5256
www.KriegerProducts.com

Circle Reader Service #172

Anti-Reflective Glass

IGT Glass



Luxar anti-reflective glass is perfect for any glass application where glare and reflection are not wanted. Luxar reduces glare and reflection to less than 0.5%. It is perfect for museums, store fronts, stadiums, restaurants, projection rooms and display cases. It is available on low iron float glass for maximum clarity in 2mm to 12mm thicknesses to meet any project requirement.

480-767-8220
www.luxar.ch

Circle Reader Service #170

Curved Translucent FRP Panel Systems

Major Industries, Inc.



Looking for unique design possibilities? TransCURVE™ translucent building panels from Major Industries provide quality daylighting and exceptional performance with the added benefit of striking, unique appearance. TransCURVE™ panels feature a premium architectural-grade FRP exterior skin that blocks damaging UV rays while wrapping your building's occupants in the glow of glare-free natural light. Let them show you how their skilled staff and field-proven daylighting products can enhance your next project.

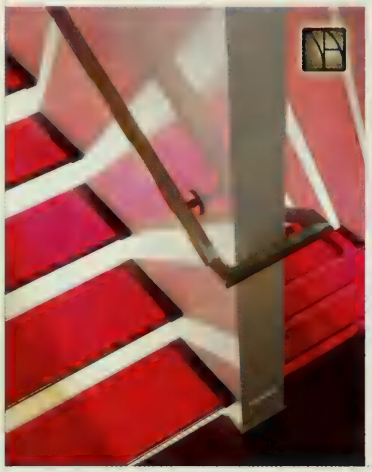
715-842-4616
www.majorskylights.com

Circle Reader Service #173

TO ADVERTISE: Contact Deidre Allen
T: (212) 904-2010 / F: (609) 426-7136
deidre_allen@McGraw-Hill.com

Treads in Red

Nathan Allan Glass Studios Inc.



Two layers of tempered glass, with exclusive Nathan Allan Glass Sandpaper on the walking surface. Glass Sandpaper is highly rated through ASTM D2047 testing for both wet and dry conditions. Their unique bright Red color finish is added to the underside of the glass treads to complete this unconventional stairway. Architect: Mark Pynn, Idaho. Contractor: Ken Herich, Idaho. Email bm@nathanallan.com

604-277-8533 ext. 225
www.nathanallan.com

Circle Reader Service #174

Trimless... With Invisible Hinges

Studco Building Systems US



EZY Jamb... Now even better. The combination of a trim-free and invisible hinge gives the flush finish door jamb system the look that has been sought after for many years. EZY Jamb is a split-type jamb manufactured from cold rolled steel to produce a strong and secure assembly. The patented jamb comes with perforated sides for flush finishing giving the doorway a clean line look. Fax number 585-265-6678 Email mail@studcosystems.com

800-675-8023

Circle Reader Service #177

Solar Control Glass

Oldcastle Glass



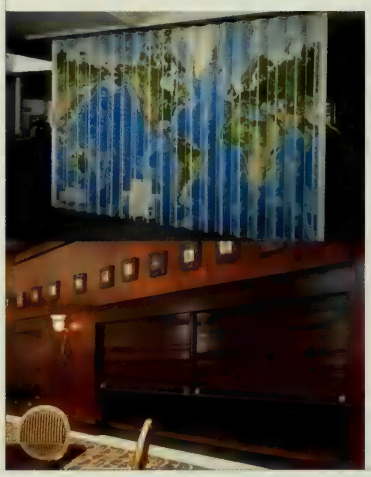
Exclusive, new SunGlass™ Solar Control Glass delivers the beauty of the sun without the heat. Now architects can specify a neutral color glass that invites the sun in without making building occupants sweat. That's because SunGlass™ delivers a combination of unprecedented solar control and visible light transmittance. It's the look you want with the performance you need.

866-OLDCASTLE (653-2278)
www.oldcastleglass.com

Circle Reader Service #175

Doors for Interior Architecture

Woodfold Mfg., Inc.



Some will say that nothing is more beautiful than wood. Woodfold Mfg., Inc. would agree. Woodfold Mfg., Inc. custom made accordion and roll-up doors (available in hardwood and non-hardwood finishes as well) are both functional and beautiful. Woodfold Mfg., Inc. has models available for use as sight, security, and acoustic applications. Its solid hardwood roll-up doors coil conveniently overhead. And, to assure on time completion of your projects, Woodfold Mfg., Inc. has the industry's best production cycle. Fax number 503-357-7185

503-357-7181
www.woodfold.com/AR

Circle Reader Service #178

Sustainable Commercial Entrance Products

Special-Lite, Inc.



Special-Lite provides the single, sustainable solution to the multiple challenges of school and commercial entrances. Attractive entryways for all architectural styles; GREENGUARD Certification for Indoor Air Quality; superior thermal performance; no need to finish or refinish; cannot rust, crack, split, peel or rot; extends life of entire entrance;lLow maintenance requirements. To learn more, visit their website or request their Green and Educational Facilities brochures.

800-821-6531
www.special-lite.com

Circle Reader Service #176

Ornamental Plaster Ceiling Tiles

Above View Mfg., By Tiles, Inc.



Above View ornamental plaster ceiling tiles are fabricated from a non-toxic, non-combustible, proprietary composition. They drop into any standard 15/16-in. T-Bar grid system. There are more than 50 standard designs, custom design work, and 1,300 custom colors and faux finishes available upon request.

414-744-7118
www.aboveview.com

Circle Reader Service #179

TO ADVERTISE: Contact Deidre Allen
T: (212) 904-2010 / F: (609) 426-7136
deidre_allen@McGraw-Hill.com

Decorative Mouldings

Architectural Products by Outwater, LLC



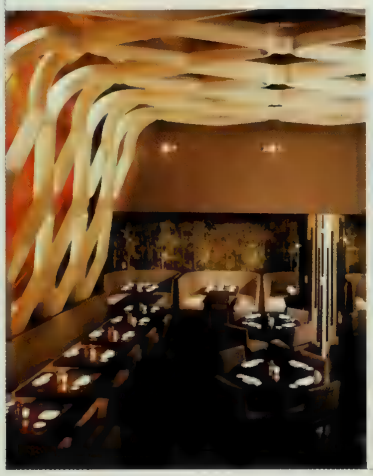
Outwater introduces Wood Plus, a new line of decorative mouldings that afford the look, quality and elegance of the finest plaster and wood mouldings at the cost of inexpensive, unfinished pine mouldings. Comprising a premium grade, solid wooden core, Wood Plus is fused with a durable, smooth polymer bonding that can be painted, glazed or faux finished without priming. Offered in a variety of designs ranging from simple to highly ornate, Wood Plus will augment the beauty and refinement of any room. Sold in 9-ft. lengths, quite simply, there is no minus to Wood Plus. Free 1,100+ Page Master Catalog.

800-835-4400
www.outwater.com

Circle Reader Service #180

Custom-Molded Architectural Shapes

Formglas



Custom-molded architectural shapes by Formglas expand design opportunities for interiors and exteriors. Lightweight and durable GRG and GRC components are cast in an endless array of shapes, textures and color finishes. The Formglas team of trained professionals work with you to find practical and easy-to-install solutions that enhance aesthetic appeal. Email info-ar2@formglas.com

416-635-8030
www.formglas.com

Circle Reader Service #183

Decorative Wall Panels

Crane Composites, Inc. (formerly Kemlite Company, Inc.)



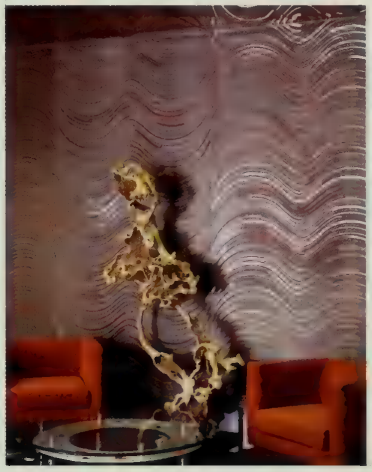
frpDesign Solutions is a family of decorative wall panels that provides an alternative to traditional wall coverings such as ceramic tile, wood paneling or vinyl wall coverings. Offering both functionality and design, products in the frpDesign Solutions line are made of a moisture-resistant frp panel with a decorative finish that includes myriad colors, patterns, and woodgrains, as well as a tile-look panel. Available with over 500 choices, frpDesign Solutions is easy to install and maintain. For more information, visit Kemlite on the web.

800-435-0800
www.frpdesignsolutions.com

Circle Reader Service #181

Cast Metal Wall Surfacing Material

Gage Corporation, Intl.



Gagecast® is a cast metal wall surfacing material suitable for a variety of interior architectural applications where patterns that feature high luster, relief, durability, and cost effective installation are a requirement. Twenty-eight designs are standard, however, custom collaboration is encouraged. Gagecast® is one component of Gage Vertical Surfacing. Contact the factory for product literature and selected samples.

800-786-4243
www.gageverticalsurfacing.com

Circle Reader Service #184

Slate Countertops

Evergreen Slate Company



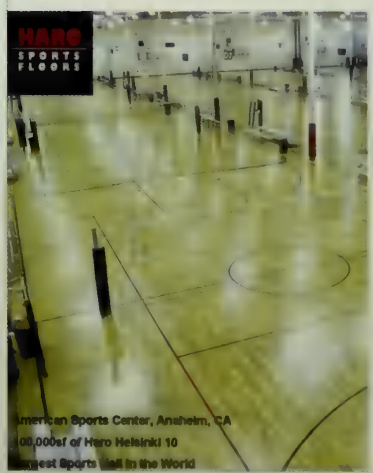
The rich depth and warmth created by the natural color and texture of Vermont and Welsh slate provides a distinctly comforting feeling to interior spaces. Its honed finish provides stain resistance and a luxuriously rich feel. Evergreen offers nine colors and six edge profiles for countertops, backsplashes, sinks, stair treads and risers, and fireplace surrounds, as well their cladding, flooring and roofing products. Imagine it and they will create it.

866-USA-SLATE
www.evergreenslate.com
AIA Booth #14225

Circle Reader Service #182

Sports Floors

Haro Sports Floors



Athletes shouldn't suffer through injuries due to a poor performing sports floor. Athletic Floor Systems provides the best performing, safest and lowest cost gymnasium floors available. AFS supplies sports floors for competition gyms, sports arenas and multi-purpose facilities. There are more than 7500+ installations in over 65 countries. Demand performance, safety and low cost in your next sports floor.

800 323 6792
www.haro-usa.com

Circle Reader Service #185

TO ADVERTISE: Contact Deidre Allen
T: (212) 904-2010 / F: (609) 426-7136
deidre_allen@McGraw-Hill.com

Green Roof Systems

Homasote Company



Homasote Company, one of America's leading green building products manufacturers and nailbase roof insulation's originator, has received Factory Mutual approval for N.C.F.R.® Thermasote® on steel roof decks. Use it to specify attractive, residential-looking roofs for multi-family, mixed-use, commercial, medical and other construction. For an alternative green roof system, excellent for conventional and LEED® construction, specify Firestall® Roof Deck with N.C.F.R. Thermasote. Wind uplift tests show these Homasote® systems make code in wind-prone areas.

800-257-9491 Ext. 1211
www.homasote.com/thermasote

Circle Reader Service #186

Porcelain Tiles

Viva Ceramica



With three solid colors, brown, black and white, in porcelain through-bodied tiles with softly rough surfaces reminiscent of cast iron, you can't get more classical than this! Super simple patterns make this a series that's perfect for the most contemporary of elegant homes today. Available in the 8"x24" and 24"x24" sizes, the tiles are edge-ground and thus naturally modular, born to be installed edge to edge.

www.cerviva.it

Circle Reader Service #189

Paint & Anodize Finishes

Linetec

LINETEC
FINISHER OF CHOICE!™

CONTINUING EDUCATION AIA

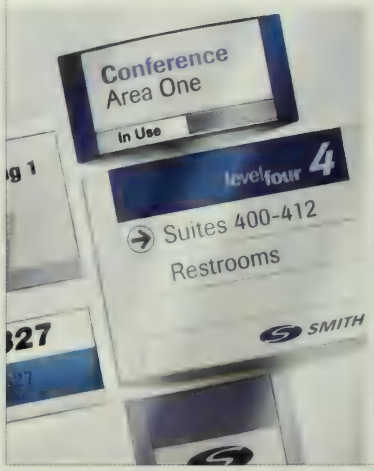
Linetec offers "Introduction to Coatings: Field Performance and the Application Process" as a registered online learning program to help you attain your AIA Continuing Education credits. This program compares the field performance of architectural Kynar®/Hylar® paint, anodize and powder coat finishes. Also covered are the steps associated with each application process. The presentation is available on-demand from Linetec's Architect Resource Center located at www.linetec.com.

888-717-1472
www.linetec.com

Circle Reader Service #187

Architectural Signage

APCO Sign Systems



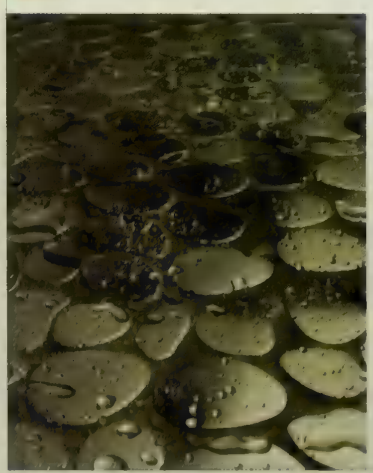
For 40 years, APCO has been a leader in the design and manufacturing of modular sign systems. Their product line includes interior and exterior sign systems, directories, displays, sign-making software, and ADA-compliant solutions. Each line is backed with commitment, quality, and innovation. With headquarters and manufacturing in Atlanta, APCO has offices across the nation and worldwide.

887-988-APCO
www.apcosigns.com

Circle Reader Service #190

Architectural Surfaces

SOLI



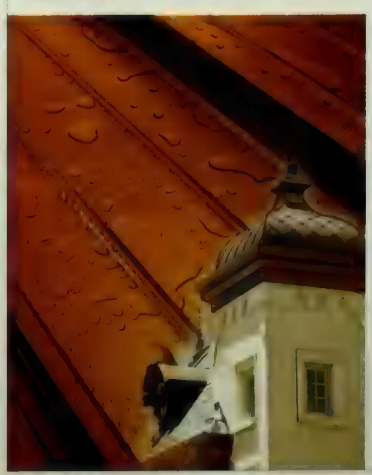
SOLI offers one-of-a-kind architectural surfaces for traditional and contemporary applications. From metal to marble, granite to glass, SOLI products bring distinctive design to floors and walls, indoors and out. They also offer a variety of unique porphyry, cobblestones and pavers. View their extensive collection of innovative tile and natural stone at www.soliusa.com.

800-410-7654
www.soliusa.com

Circle Reader Service #188

Architectural Sheetmetal Products

CopperCraft



Structural integrity and performance are as important as aesthetics. Applying this understanding to the manufacture of its products is what sets CopperCraft apart from the competition. Their design, engineering, testing, and fabrication methods meet stringent structural and performance standards. You get unsurpassed quality, delivery, and custom service including a nationwide network of representatives. Their complete line of high quality architectural sheetmetal products include ornamental dormers, roof vents, roof drainage products, conductor heads, steeples, cupolas, and spires.

800-486-2723
www.coppercraft.com

Circle Reader Service #191

TO ADVERTISE: Contact Deidre Allen
T: (212) 904-2010 / F: (609) 426-7136
deidre_allen@McGraw-Hill.com

Canopies & Walkway Covers

CPI Daylighting Inc.



CPI provides single source responsibility for the entire Clearspan Canopy structure from the ground up. CPI's new Clearspan design for translucent canopies and walkway covers offers an economical, functional design with unequaled aesthetic appeal. Clearspan provides an excellent shelter and gives an open-air feeling by allowing natural daylight through to light up the area below.

800-759-6985
www.cpidaylighting.com
AIA Booth #2619

Circle Reader Service #192

Shelters, Gazebos & Pavilions

PorterCorp



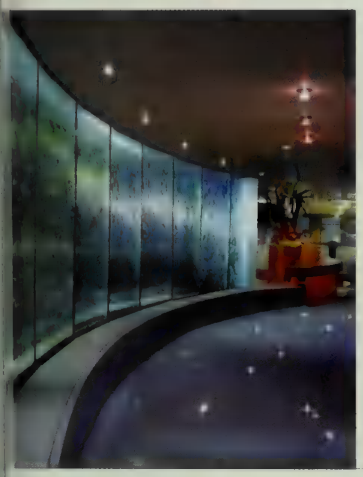
Permanent umbrellas designed to withstand 90-mph winds are just one of the many innovations at PorterCorp, makers of Poligon Park Architecture and Parasol Fabric Covered Shade Shelters. A history of attention to design details, quality workmanship, and one of the best frame finishes available have put PorterCorp at the forefront of expanding the concept of 'pre-fab' structures. That concept now includes a complete line of steel, fabric-topped, and glulam shelters. Log on to PorterCorp's web site for full details.

800-354-7721
www.portercorp.com

Circle Reader Service #195

Green Waterfalls

Harmonic Environments, Inc.



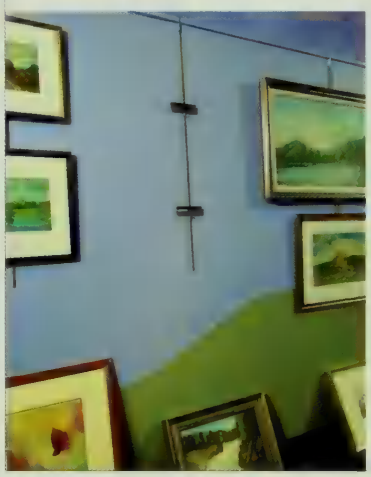
Harmonic Environments is the only waterfall manufacturer to offer ZonePure™ water purification systems with every waterfall, making their products uniquely suited for healthcare, hospitality, offices, or anywhere clean and healthy water features are desired. Each custom waterfall can be created using environmentally friendly materials.

800-497-3529
www.HarmonicEnvironments.com

Circle Reader Service #193

Art Presentation

Walker Display Incorporated



Life's all about change and so is Walker Display when it comes to art presentation. The Walker system frees you to explore all your options. No-More-Holes frees you to rearrange your artwork with ease and speed. Embrace change.

800-234-7614
www.walkerdisplay.com

Circle Reader Service #196

Surface Protection

PERMA·CRETE®



ICC approved PERMA•CRETE® surfaces provide architectural, load-bearing strengths of over 6,000 PSI compressive strength and are sealed, nonporous, and chemically resistant to solvents, stains, temperatures and UV rays. The products can be applied over most surfaces including building exteriors, driveways, sidewalks, bridge decks and pool interiors. PERMA•CRETE® renews instead of removes, enhances property values, and is a cost-effective way of eliminating surface deterioration and costly maintenance

800-607-3762
www.permacrete.com

Circle Reader Service #194

Assembled Storage for Books & Binders

Aurora by Richards-Wilcox



The Aurora Bookcase is all about versatility for storage of books, binders and miscellaneous items. Developed to pair with lateral cabinets, the bookcase comes in two heights (41-5/8-in., 65-5/8-in.) and four widths (30-in., 36-in., 42-in., 48-in.). It features more depths that most standard bookcases (9-in., 10-in., 12-in., 13-in., 15-in. 16-in., 18-in.) with shelves adjustable on 1-1/2-in. centers. For more information contact Aurora Storage on their toll free line, 800-877-8456 or visit them online at www.aurorastorage.com.

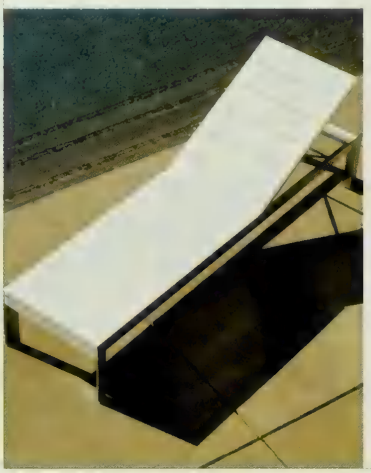
800-877-8456
www.aurorastorage.com

Circle Reader Service #197

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deidre_allen@McGraw-Hill.com

Clean-Lined Outdoor Furniture

Modern Outdoor



Spring is once again upon us—the perfect time to experience the great outdoors. Modern Outdoor offers four complete lines of high-style, clean-lined, environmentally conscious outdoor furniture for your outdoor space projects. The Modern Outdoor Collections are commercial grade products designed for use in all manner of public spaces—restaurants, hospitality, parks, resorts, hotels...yet with an aesthetic that is perfect for a residential client's backyard setting. View the entirety of their collection online.

818-785-0171
www.modernoutdoor.com

Circle Reader Service #[illegible]

Custom Made Light Fixtures

CPLIGHTING



CPLIGHTING offers a wide variety of custom made acrylic and metal decorative light fixtures designed by Christopher Poehlmann. The new *BigShade Pendant* is perfectly suited for hotels and restaurants as well as residential use. Measuring 34-in. in diameter by 15-in. high, this cable-suspended fixture is lamped with a 100W type G bulb providing excellent illumination without hot spots. Visit their web site www.cplighting.com to see the complete line of CPLIGHTING fixtures including the *newGROWTH* aluminum tree branch chandelier and other custom designs.

866-597-4800
www.cplighting.com

Circle Reader Service #291

Garage Organization Solutions

Rubbermaid Building Products



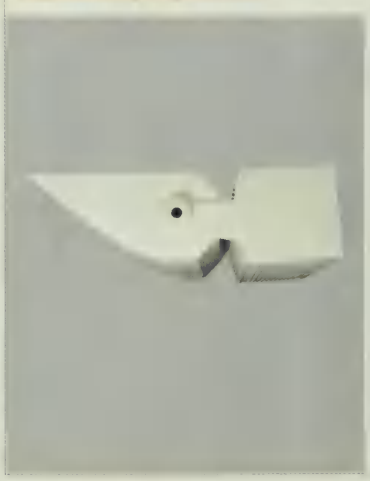
Rubbermaid's Garage Organization System features rail-mounted modular storage units that can be customized and refigured to meet your specific needs. Laminated wood cabinetry hangs off the FastTrack® rail to keep all cabinets off the floor, away from dirt and water. The rail installs quickly into drywall, concrete, or brick and supports up to 2,000 lb. Rubbermaid stands behind its products with a lifetime warranty.

866-533-1197
www.rubbermaidpro.com

Circle Reader Service #199

Large Lighting for Large Spaces

Engineered Lighting Products



These extruded, A15 fixtures are 7-1/4-in. by 25-5/8-in. by 28-in. They tilt for precise aiming of the asymmetric beam and can be secured in place. Interior and exterior wet location styles are available in one or two lamp configurations for Metal Halide, HPS or Fluorescent models. Fax number 626-579-6803 Email elp2@aol.com

626-579-0943
www.elplighting.com

Circle Reader Service #292

Electric Radiant Heating Cable

Orbit Radiant Heating



Orbit Radiant Heating specializes in maintenance-free electric radiant heating systems that feature Nexans TXLP heating cable. Manufactured in Norway, the cable is designed to withstand the rigors of harsh outdoor use for snow- and ice-melting. The integrated sensors and controls along with specific application design assure the lowest first and operational cost and maximum safety. Indoors, designers prefer Orbit systems because they operate silently, are non-allergenic, safe, and require no boiler capacity or mechanical room space.

800-522-3986
www.orbitmfg.com

Circle Reader Service #290

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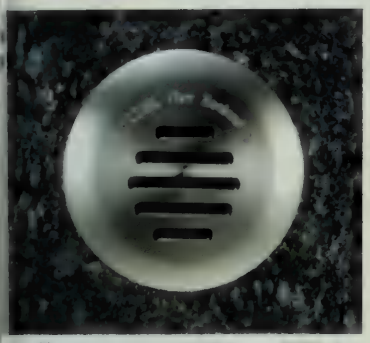
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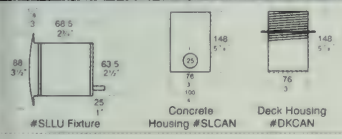
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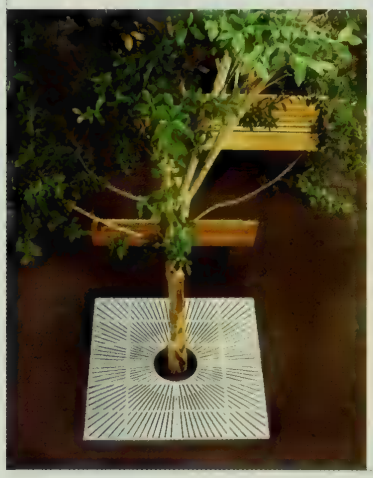
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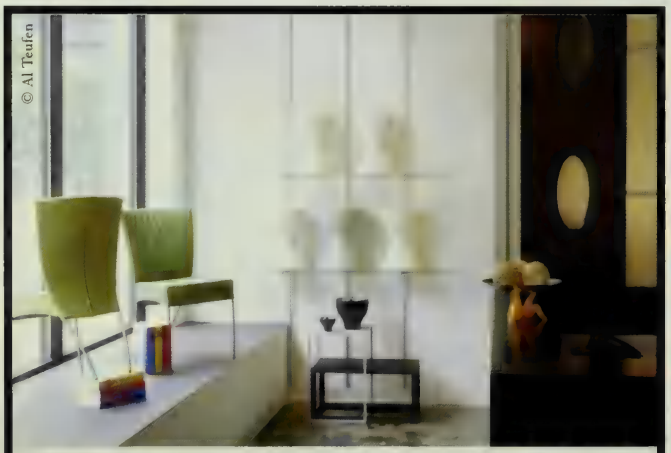
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AIA Notice of AIA Candidates and Convention Business Items

Candidates for Institute Offices

Elections for the Institute's next First Vice President/President-elect, two Vice Presidents, and Treasurer will be held May 3–5, 2007, at the AIA 2007 National Convention and Design Exposition in San Antonio. If no candidate for First Vice President obtains a majority of the votes cast during the initial round of voting on May 3–4, a run-off election will take place on May 5, 2007. The Institute's Secretary has certified the following candidates:

For First Vice President/President-elect

Michael R. Broshar, FAIA (AIA Iowa)
Marvin Malecha, FAIA (AIA North Carolina)

For Vice President

Peter J. Arsenault, AIA, NCARB, LEED AP (AIA Central New York)
David J. Brotman, FAIA (AIA California)
Clark D. Manus, FAIA (AIA California)

For Secretary

Hal P. Munger, FAIA (AIA Toledo)

Proposed Bylaws Amendments

The AIA Board of Directors is sponsoring amendments to the Institute's Bylaws, which are scheduled for consideration by the delegates at the annual business meeting in San Antonio on May 5, 2007. Bylaws amendments require the approval of a two-thirds majority of all votes accredited to be cast at convention.

Bylaws Amendment 07-A—Nomination and Election of Honorary Fellows

The Institute's Bylaws provide that an architect of esteemed character and distinguished achievements who is neither a U.S. citizen nor a resident of the United States, and who does not primarily practice architecture within the domain of the Institute, may be admitted to Honorary Fellowship. The Institute's Bylaws also currently provide that only a member of the Board, the College of Fellows or the International Committee may nominate qualified individuals for Honorary Fellowship. A committee of former presidents of the AIA has recommended that the scope of potential nominators be expanded to include any member of the Institute. This suggestion received a favorable response when it was brought to the Secretary's Advisory Committee and to the Board.

Bylaws Amendment 07-B—Architect Emeritus

The Institute's Bylaws currently provide that "any Architect member may apply for Emeritus status who has been in good standing in the Institute for fifteen successive years and either (i) has attained the age of 70, or (ii) has attained the age of 60 and is retired from the profession of architecture or is so incapacitated as to be unable to work in the profession." All Architect member rights, interests, privileges, titles, liabilities and obligations remain unchanged upon advancement to Emeritus status, except that Members Emeritus may no longer be required to pay either regular or supplemental dues nor to maintain the right under law to practice and use the title Architect. In addition, the registration fee is waived for Emeritus members attending the national convention. Recently, the Secretary has received requests for dues waivers from several Architect members who are incapacitated but are ineligible for Emeritus status because they are not yet 60 years of age. Such dues waivers may be approved for only one year at a time, and may not be granted for more than three consecutive years. To ameliorate the hardships experienced by younger incapacitated members, the Board of Directors is sponsoring this amendment to the Institute Bylaws that would permit a member—regardless of age—to apply for emeritus status if s/he satisfies other eligibility requirements and is so incapacitated as to be unable to work in the profession.

Bylaws Amendment 07-C—Associate Emeritus Membership Category

The Institute's Bylaws currently provide that Architect members may achieve Emeritus status by satisfying certain eligibility requirements. *(See above.)* The Secretary of the Institute has investigated the benefits and disadvantages of opening Emeritus membership to Associate members. If Emeritus status were opened to Associate members on terms generally comparable to those used for Architect members, approximately 535 Associate members would satisfy current age requirements to achieve Emeritus status. If all were to achieve Emeritus status, they would expand the current Emeritus ranks by about eight percent. The Board sponsors this amendment to open Emeritus membership to Associate members.

Resolutions

The delegates at the AIA 2007 National Convention and Design Exposition will be asked to consider the following resolutions, which require approval by a majority vote:

07-1 Leading by Design: Elevating Collaboration as the Path to a Sustainable Future for Society and the Architecture Profession

07-2 Recognition of Newly Licensed Architect Members

07-3 Appreciation of Departing Members of the Council of Architectural Component Executives

07-4 Appreciation to Retiring Executive Committee and Board Members

07-5 Appreciation to the Host Chapter

07-6 Appreciation to Convention Committees

07-7 Appreciation to Exhibitors

07-8 Appreciation to RK Stewart, FAIA, and Barbara Lyons Stewart, AIA

For candidates' statements and the full text of the proposed Bylaws amendments and resolutions, visit the AIA Web site at *www.aia.org*.

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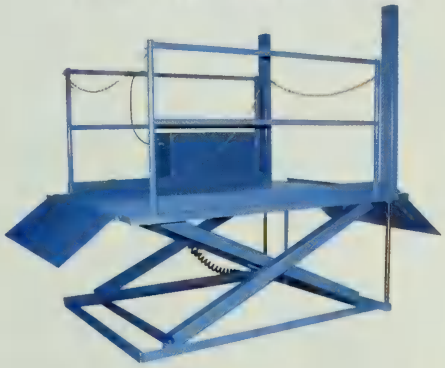
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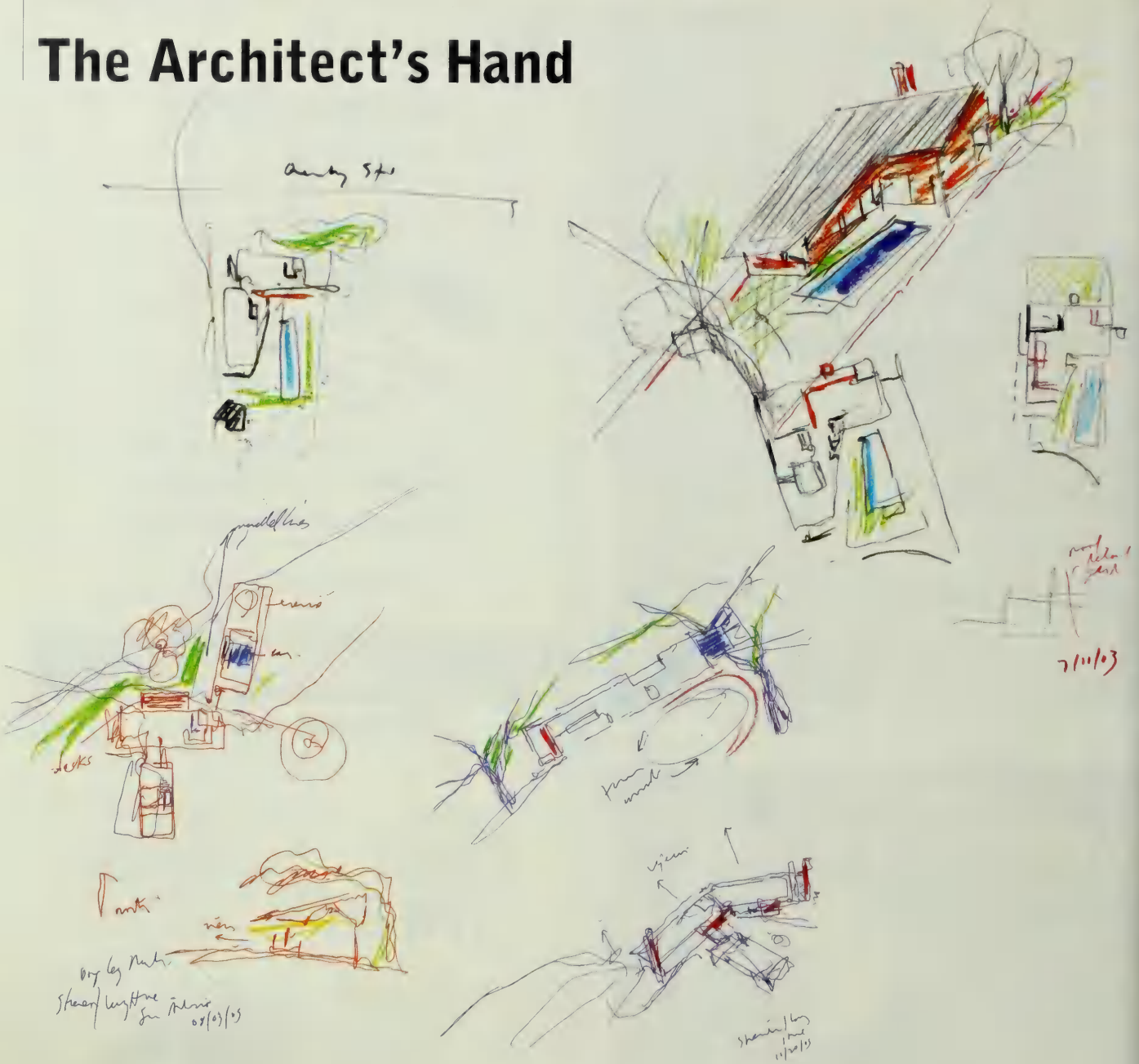
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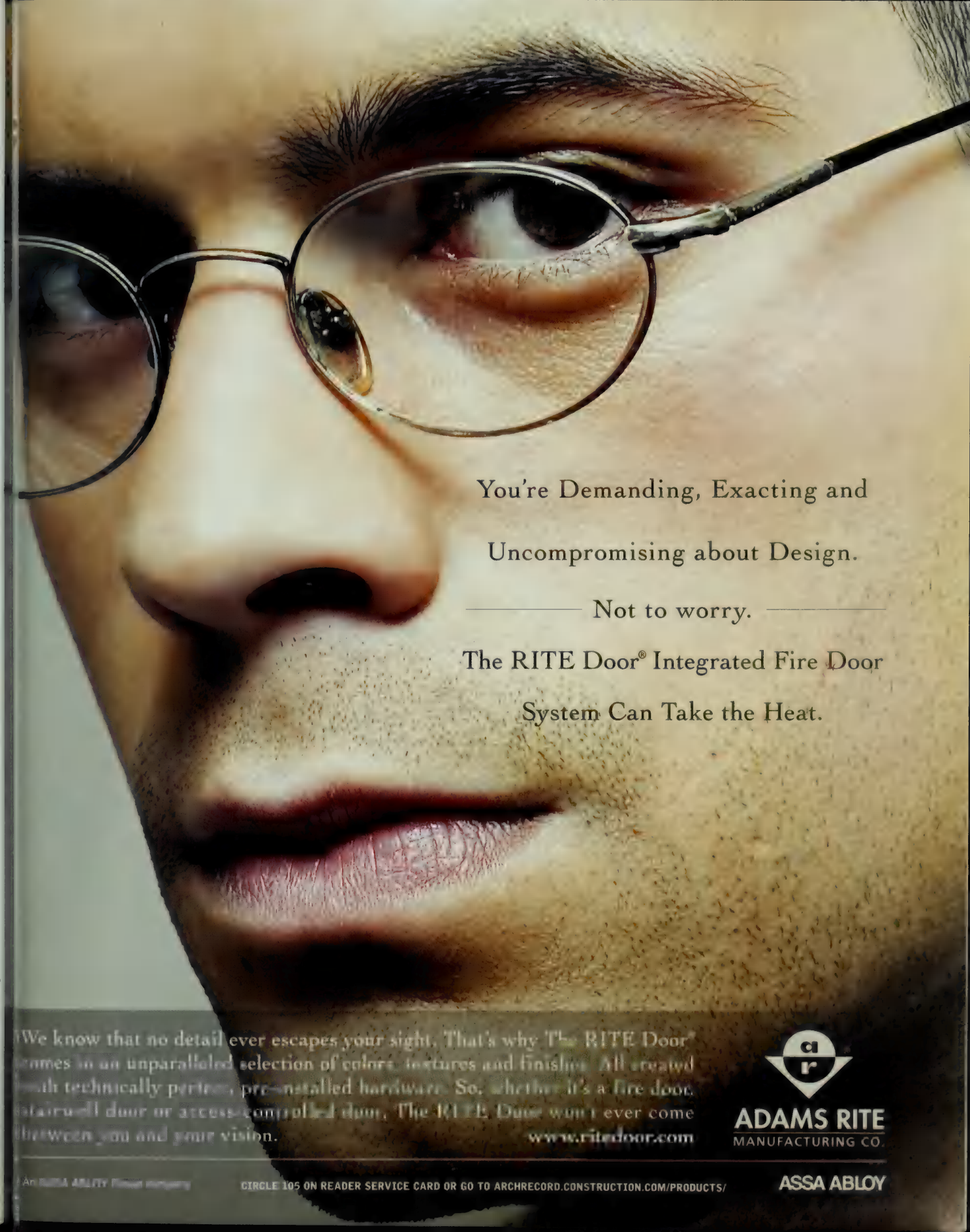
The Architect's Hand



Carlos Jimenez captures the moment

***Hanneman Residence, Houston, Texas*, graphite, prisma pencil, 2003 (top left and right); *Boerne Residence, Boerne, Texas*, floor plan and section: blue ink, prisma pencil, 2005 (middle and bottom right); floor plan and elevation study: red ink, prisma pencil, 2005 (middle and bottom left).**

Sketching provides a private form of notetaking for Carlos Jimenez, a Houston-based designer and architecture professor at Rice University. "It's of the moment, and not self-conscious," he says. When Jimenez visited the sites for two houses he was designing in Texas (above), he took along prisma and graphite pencils and blue- or red-ink pens to jot his impressions down on paper and work out initial design concepts he would develop later. "Sketches help me to keep track of the placement of the trees, or potential views of the landscape from inside the house, and to arrive at my own understanding of the problem," he says. In the case of the residence in Boerne, Texas (unbuilt), designed in 2005, he used sketches to determine how trees could frame the house, shown by the green marks in the drawing (middle), and where he could place the indoor and outdoor fireplaces, shown by red marks (bottom right). With his design of the Hanneman residence in Houston (finished in 2005), sketches (upper right) helped Jimenez integrate the pool with the house on a tight site. As he says, "Drawing by hand is better than a computer: sketching gives me a distance." *Suzanne Stephens*


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